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COHESION: A NEW PERSPECTIVE

by

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Cohesion: A New Perspective

by

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requirements for the degree of

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ABSTRACT

Recently the U.S. Army has recognized the benefits to combat effectiveness and retention associated with building cohesion in small units and has established programs intended to build cohesion. These programs have focused on small units in the combat arms and rely primarily on building cohesion through increased continuity of the unit's personnel. Research has established the significance of homogeneity of work group members in the building of cohesion in work groups. This research develops a generalized model for the development of work group cohesion through the introduction of hypotheses. Data was collected to validate the model from units stationed in the Republic of Korea which were felt to be in worst case conditions of low continuity and heterogeneity of personnel. This generalized model may be applicable to all types of units through the management of the variables associated with the hypotheses accepted as a result of the data analysis.

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I. INTRODUCTION

Recent Studies have indicated that the development of cohesion in military units has potential for increasing the productivity of that unit. By increasing the productivity of units the effectiveness and readiness of the entire force may be increased. Recognizing this the Chief of Staff of the Army has instituted policies and established programs in efforts to increase the cohesion in units. The principle element of these programs has been the establishment of continuity of personnel in units.

For various reasons continuity of personnel is not possible or practical in all units. Also, if the personnel assignment and replacement policies of recent wars are indicative of policies to be followed in future wars, continuity of personnel in units may not exist at all. For these reasons a critical evaluation of the development of cohesion, and the elements contributing to its facilitation was necessary. This evaluation had to go beyond the scope of the current literature so that the challenges of developing cohesion under unusual conditions could be met with some degree of certainty. It is argued that if unit productivity, effectiveness, and readiness could then be insured under these conditions, it could be insured anywhere.

This research sought to identify variables which were indicative of methods to be employed in enhancing cohesion in military units under conditions of less than optimal continuity of personnel and homogeneity of members in the work group.

II. PURPOSE OF THIS RESEARCH

The United States Army has recently realized the potential benefits of cohesion in its unit's and has instituted a program to test its benefits (COHORT-Cohesion, Operational Readiness, and Training) and to implement it on an Army wide basis in Table of Organization and Equipment (TO and E) combat arms units (the Regimental System). These programs, designed to build cohesion in units, seek to derive cohesion primarily from the continuity of personnel within the unit. Rather than making individual replacements to a unit, individuals would be retained in the unit and unit rotations would become the common method of changing duty stations.

Interpersonal working relationships would be more stable under these programs which would result in a heightened sense of teamwork within the unit. This concept has been rationally developed and is practical for the types of units toward which it is being directed. The fact that TO and E units have similar missions, structures, manning levels, and equipment make them interchangeable and unit rotations seem to be a particularly viable approach to developing and maintaining cohesion in these units.

Unfortunately, TO and E units are in the minority in the Army. The unique missions of Table of Distribution and

Allowance (TDA) units require correspondingly unique structures, manning and equipment. The consequence of this is an impracticality of unit rotations and hence a limitation on the Army's approach to building unit cohesion in TDA units. Individual replacements will continue to be the standard method of personnel rotation in TDA units. It is therefore apparent that, if TDA units are to benefit from the potential advantages of unit cohesion, other methods of building cohesion must be identified and applied. The purpose of this research is to identify potential variables which can be systematically managed in TDA units so that the benefits of increased cohesion can be realized in these units.

III. WHAT IS COHESION?

Any investigation into cohesion must begin with a definition of the term. Cartwright and Zander [Ref. 1] identified three different common meanings of the term; (a) attraction to the group, including resistance to leaving it; (b) morale, or the level of the members to attack their tasks with zeal; and (c) coordination of the efforts of members. As an indication of the concept of "groupness" they concluded that a more inclusive definition was that "cohesion is the resultant of all forces acting on the members to remain in the group, including both driving forces toward the group and restraining forces against leaving the group." Following such a definition cohesion can be described as a process taking place between individuals and groups. Most researchers have accepted this definition and have devised various sociometric instruments to measure the forces involved in the cohesion process.

In common language cohesion involves group pride, group solidarity, group loyalty, team spirit, and teamwork. Some of the instruments as described by Seashore [Ref. 2] have been designed to measure include: the relative frequency of "we" versus "I" references in conversation; the relative frequency of friendship choices within and outside the group; the degree to which norms are shared; the strength

of desire to continue relations as a group; and the perception of the group as being better than others in various respects. Eisman [Ref. 3] has pointed out the problems of the use of the different definitions of cohesion in research. The use of different definitions has resulted in the wide variety of instruments designed for its measure which have no significant correlational relationships to each other when administered to the same sample of groups. For this reason it is imperative that the definition which is most appropriate to the intent of the research be accepted. For the purposes of this research Cartwright and Zander's "resultant of forces" definition has been accepted. This definition was accepted because the purpose of this research was to identify variables which could be managed to create cohesion. The other definitions were viewed as being more closely related to the results of cohesion rather than its causes.

IV. WHY STUDY COHESION?

Cohesion as a process has been widely recognized and reported upon by military writers, historians, and social scientists regarding its effects on military as well as other organizations. In order to fully understand the implications of cohesion on organizations we must first examine the factors contributing to its development. The two primary factors are judged to be (1) the individual's motivations and (2) the effects of norms generated in the group.

Man by his nature as a social being is born into a family, makes friends during his entire lifetime, earns his living through his association in work groups, is associated with school, civic, religious, and other groups, and usually marries and has a family of his own. A significant portion of man's existence is realized through his association with groups. Of the several individual motivations for seeking membership in groups some of the more significant are believed to be:

1. Sociological attraction to a member (or members) of the group.
2. Belief that association with the group can provide status to the individual.
3. Belief that association with the group can provide added security to the individual or to a concept in which the individual believes.

4. Belief that the group can provide access to resources to which the individual would otherwise not have access.

5. Belief that the group can provide stability to an otherwise unstable situation.

Of the many functions which groups perform, an important one is that of providing psychological support (reinforcement) to the values of the individual members of the group. Groups which provide primary, direct support to an individual are commonly referred to as constituting that individual's support system. Generally an individual's family is among the groups in his support system. Work groups are capable of being among the groups in an individual's support system. Loyalty to one's support system groups is generally quite strong. Loyalty to a group in general may be awarded by the individual contingent upon the group's continuing ability to fulfill the objects of the individual's motivations.

This is the essence of Vroom's [Ref. 4] expectancy theory of motivation. These motivations can vary in intensity and even change in relative proportion over time as the individual initially seeks membership, is accepted, becomes an active member, and seeks to maintain membership in the group. Once an individual is a member of a group, whether membership was voluntary or involuntary, continued membership may be self imposed for fear of arousing the adverse sentiments of other group members. Thus compliance

with the norms of the group becomes a requirement of continued credible group membership.

Norms are defined as the expectations and guidelines of behavior as required by the group. Over time group members jointly, either consciously or unconsciously, define what is fair and what is appropriate behavior. Typically members not following these standards suffer some sort of social censure from the other members of the group. Norms facilitate the attainment of group objectives, protect the group from external pressures, promote group stability and act as a control on member behavior.

Subgroups often develop when some members share different norms than the group itself. This serves to fracture the group and can seriously hinder the effectiveness of the group leader in controlling behavior within the group. As noted by Andre de la Porte [Ref. 5], when formal group norms, as defined by the group leader, coexist with the informal norms of subgroups, the informal norms frequently transcend the formal. Group norms do not necessarily exist for all possible contingencies which the group may encounter but will generally exist for encounters to which the group is exposed on a regular basis.

The individual motivations and development of group norms are thus of great significance in studying the group itself. Tuckman [Ref. 6] found a sequential series of steps

to be indicative of a small initially unstructured group's development. These steps are:

1. Forming: the development of role structure and interpersonal dependencies.

2. Storming: competition for position, emotional tension, group drive.

3. Norming: the development of group norms and cohesion; pressures toward conformity.

4. Performing: productive task activity.

Recognizing this aspect of group development, Hersey and Blanchard [Ref. 7] developed a prescriptive theory of the most effective leadership focus depending upon the level of group maturity. Basically this "Life Cycle Theory" states that a mature group will require only a low task and a low relationships orientation of its leader to be effective because of the normative influence the group has on individual member's behavior which is the manifestation of individual motivations. It is evident, then, that a leader who can speed up the steps of group development or increase the speed of going through the life cycle of the group to maturity, can expect that cohesion will develop faster in the group and that group performance with minimal intervention from the leader will follow in a shorter timeframe.

Understanding that the cohesion process necessarily takes into account individual motivations and group norms, the practitioner of organizational studies will ask "what are the consequences?" Several observations and findings

relative to cohesion have identified potential advantages and disadvantages of it.

Seashore [Ref. 8] has found that highly cohesive groups exhibit less anxiety among its members than do low cohesive groups. General Meyer [Ref. 9] has intonated that this difference in the cohesion of divisions in combat during the Korean Conflict may explain the variance in stress casualties under varying levels of unit combat severity. Goodacre [Ref. 10] found that there were positive correlations between cohesiveness and the problem-solving scores of combat units in field exercises. Hemphill and Sechrest [Ref. 11] found positive correlations between the cohesiveness of bomber crews and their bombing accuracy scores. Cohen, Whitmyre, and Funk [Ref. 12] found cohesion to be positively related to productivity in generation of unique ideas (creativity). Stogdill [Ref. 13] concluded from his survey that productivity and cohesiveness tend to be positively related under conditions of high group drive.

Seashore [Ref. 14] and several others have observed that highly cohesive groups have less variation in member productivity than low cohesive groups. Howell and Dorfman [Ref. 15] concluded from their survey that high group cohesion can be a weak substitute for organizational leadership. Bare [Ref. 16] concluded from his experiment on productivity that 41 percent of the variance in leader perceptions of group performance can be explained by three variables and

that group cohesion is the strongest of these three. Nelson and Berry [Ref. 17] concluded that Marine Corps Recruit Platoons that were more cohesive had a better attitude toward the Marine Corps. Stouffer, et al. [Ref. 18] concluded that unit cohesion supported and sustained the combat soldier of World War II through periods of stress he would otherwise not have been able to withstand.

Janowitz and Shils [Ref. 19] observed that the German soldier in World War II would continue to fight in combat as long as he received affection from the other members of his squad and platoon. S.L.A. Marshall [Ref. 20] concluded that an infantry soldier would keep going during World War II based on the presence or presumed presence of a comrade. General Meyer [Ref. 21] also noted that recent research in US field units in Europe has shown a high correlation between soldier attitudes and the general level of performance on Skill Qualification Tests, Physical Training, Army Training and Evaluation Programs, reenlistments, and Annual General Inspections.

With this multitude of evidence that cohesion and concern for the welfare of the group has positive effects, what possible adverse consequences could there be? Seashore [Ref. 22] identified this in his experiment and noted that some highly cohesive groups performed at significantly lower levels than low cohesion groups. Stogdill [Ref. 23] reports that Grace, Fiedler, Likert, Roby, and Palmer and Myers have

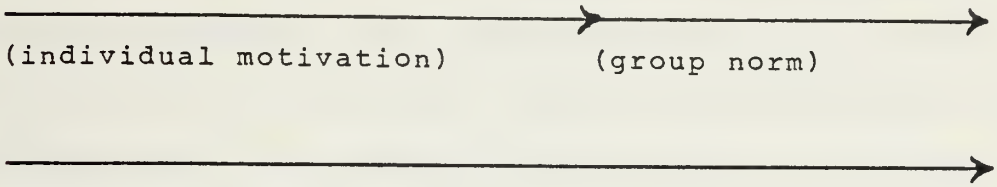
all found in separate studies that high cohesiveness is associated with low productivity. Janis [Ref. 24] identifies the problem that in highly cohesive groups, the tendency of individuals to agree with the group in order to maintain favorable membership in it interferes with critical decision making. He terms this problem "Group Think." Harvey [Ref. 25] carries this problem one step further in his "Abilene Paradox" by posing the conditions under which the group will take actions which are contrary to the true (unexpressed) desires of all members in the group.

Surely, it would seem that the conclusions of these studies are inconsistent. In spite of the scientific application of accepted research procedures in these studies the inconsistency of the results cannot be ignored. Any model developed to explain the effects of cohesion must account for the inconsistency of these results and explain how and why they could occur.

V. HOW DOES COHESION WORK?

This question is most pertinent to acquiring an understanding of cohesion and to developing a model which explains its phenomena from its inputs to its outputs. An understanding of the psychological underpinnings of the concept of cohesion is relevant. Two conceptual frameworks will be developed which are based on explaining human behavior through the application of psychology.

The first conceptual framework involves a modified version of "force field analysis" as developed by Lewin [Ref. 26]. In this framework only two forces will be considered as acting upon an individual. These forces (individual motivations and group norms) are considered to be the strongest psychological forces acting on an individual and can be conceptualized as vectors in an additive sense. They can be in congruence (in the same direction) with each other or in opposition to each other as shown in Figure 1. The resultant of this vector addition is the psychological drive manifested in the individual. This psychological drive is outwardly manifested by the individual in behavior. In evaluating the effects of these forces on the individual it should be noted that each member of a group has his own individual motivations and each group has a single group norm concerning each subject area which the group normally



(individual motivation) (group norm)

(resultant psychological drive)

(resultant psychological stress)

a. Individual motivation and group norm in same direction.

(individual motivation) (group norm)

(resultant psychological drive)

(resultant psychological stress)

b. Individual motivation and group norm in opposite direction.

Figure 1. Psychological Forces Acting on Individuals

encounters in its environment. The strengths of these two forces will vary depending on the strength of a member's convictions regarding his individual motivations and the strengths of the group norms. While it can be argued that individuals will be influenced differently to a single group's norms depending upon his susceptability to social pressures from others, it still provides a useful framework for analysis.

In applying this framework to the concept of cohesion one must consider the psychological stress on the individual and realize that individuals seek to reduce psychological stress as much as possible. When an individual's motivations are not congruent (in the same direction) with the group's norms, stress develops and the resultant psychological drive from the forces which would be manifested in behavior is greatly reduced from what it would have been if the forces had been congruent. If the forces are congruent the psychological stress on the individual is minimized and the psychological drive is greatly increased from what it would have been if only the individual's motivations had been considered.

In this framework cohesion is characterized by a minimization of psychological stress on the individual (i.e., congruence of the forces). The greater the proportion of members in the group who experience a minimization of stress as a result of association with the group, the

greater will be the group's cohesion. The effect of the increased cohesion in the group will have a multiplicative reinforcing effect on the group's norms which will further increase the psychological drive on its members.

The second framework to conceptualize cohesion involves an understanding of Freudian psychology. Freud [Ref. 27] has identified the characteristics required to meet what he defines as a "primary group." The first requirement is an identification with an object by an individual. This object could be another person, a physical object, or an abstract concept such as a value system. The second requirement is an introjection of the object into the individual's ego. The final requirement of the "primary group" is a perception either consciously or unconsciously of common objects being held in the egos of members of the group. The result of this is that members of a "primary group" identify themselves with each other in their egos. If the common objects are of a nature such that they are shared in the ego ideals of the group members attempts are made to emulate the object in one's own personality. According to Freud, objects are resident in the ego ideal under conditions of love while under conditions of fascination or infatuation the objects are resident in the ego. A common example of a "primary group" is the family. Freud uses examples of an Army and the Church as "primary groups" whose objects are the Commander and God respectively.

Freud's psychological theories can provide us much insight into the process of cohesion. It is apparent that the requirements for Freud's "primary groups" are necessary for the development of cohesion. If the object of an individual's identification such as a value system has been introjected into the ego ideal and is perceived to be shared with other members of the group an identification in the ego ideal between group members occurs and a strong bond between members characteristic of the "primary group" has developed. This strongly bound group exemplifies a cohesive group.

The strong norms of a cohesive group can be viewed as equivalent to the objects which are mutually perceived as being in the ego of the other group members. The ego, which is developed through contact with the external world, is indicative of the individual motivations which the individual develops. Attempts to emulate the ego ideal in one's personality corresponds to the psychological drive discussed earlier which is manifest in behavior. Clearly the greater the proportion of members in a group which identify with each other in their ego ideals, the more cohesive the group. If members do not identify with each other in their ego ideals the group will be less cohesive. Levinson [Ref. 28] has observed that group leaders are expected to offer themselves as identification models for the group and that if the model the leader portrays does not fit the ego ideal of the members further identification will not result between the group and the organization.

The understanding of these psychological frameworks concerning group cohesion provide the basis for the interpretation of the apparent inconsistencies of the results of cohesion reported in the studies of section IV.

What Seashore [Ref. 29] observed regarding less variation in member productivity is the result of a strong group norm's effect on the psychological drive of members in a highly cohesive group. He also observes [Ref. 30] that there will be lower anxiety (psychological stress) of members of a cohesive work group. The explanation of the apparent inconsistencies of the study results lies in a comparison between the directions of the psychological drives of a cohesive group as compared to the desired psychological drive as intended by the goals of the organization. A highly cohesive group, whose members identify with each other in their ego ideal with individual motivations and group norms congruent resulting in little psychological stress to the members can have the psychological drives of its members in the opposite direction of the goals of the organization. Clearly then in order to be beneficial to the organization individual's motivations, group norms, and organizational goals must be congruent.

Cohesion, finally, cannot be viewed as a panacea but clearly it can be employed as a very powerful tool. Providing that leadership can cultivate group norms and individual motivations so that they are consistent with

organizational goals and can guard against the situations where "Group Think" and the "Abilene Paradox" may prevail, group cohesion can be very beneficial to the organization. In a military context cohesion in units can potentially increase performance, effectiveness of training, readiness, job satisfaction, teamwork and retention, among many other advantages. The existence of group norms toward greater effectiveness in cohesive units can decrease the resistance to changes made to increase that effectiveness. This reduces the need for supervisors and leaders to enforce minimum standards of performance. This reduced need can be viewed as providing the officers and non-commissioned officers of the unit with more time to properly plan and exercise beneficial training, etc. and hopefully eliminate the use of "crisis management" in response to situations which have been improperly conceived or planned.

VI. CONSTRUCT OF A COHESION MODEL

To meet the purpose of this research one must first identify some of the key variables which contribute to the cohesion of military units. These variables could then be managed by military units to enhance cohesion. This research is not intended to be a "how to" approach to building cohesion. However, by management of the variables found to be significant in its development it should follow that cohesion would be enhanced and resulting potentials for performance and readiness increased. In conducting indepth research on cohesion it is necessary to identify the causes and effects of its existence. It would then be necessary to measure the causes as inputs to cohesion and the effects as outputs in order to assess the benefits of the cohesion process. This is an exceedingly difficult undertaking since the cohesion process itself is a very complex one which acts, by virtue of the group norms involved, as a multiplier of most inputs to the process.

For example, if a high level of interpersonal communication is a cause of cohesion in a unit and familiarity between the members of the unit facilitates the building of cohesion the effect of cohesion in the unit may also be an increased level of interpersonal communications between the unit's members. If interpersonal communications in the unit

were measured it would then be impossible to distinguish its causal relationship to cohesion from its effect. Farris [Ref. 31] has identified this problem in much of the social research which is currently theorized and ascribed to. The distinction between cause and effect is often unclear. He explains the apparent inconsistencies of research by theorizing productivity feedback loops in which productivity is the effect of a variable and also its cause.

Cycles spiralling upward or downward are the result of these feedback loops. The determination of causes and effects of cohesion could then not be appropriately identified in other than a very closely controlled experiment in which contamination from other variables affecting the variables being measured can either be eliminated or controlled. The requirements of such an experiment are probably not practical in any typical military unit having an operational mission. For this reason it may be more advantageous to measure variables thought to be relevant to the cohesion process in units or elements of a unit which are identified as possessing high or low cohesion and to critically analyze the differences to tell us more about the cohesion process and then to draw conclusions about possible causes and effects. The approach necessary for such an undertaking would be a survey which would not positively identify causes or effects but which should be indicative of key variables to the cohesion process. This is not the

optimal approach to empirical research. But in view of the anticipated difficulties required of a controlled experiment, it was the logical approach given the current understanding of cohesion as a process.

Given the survey approach to learning more about cohesion, it is necessary to identify those variables which are related to the process and to measure them. In measuring these variables it is next necessary to identify from what level they can be measured (i.e., individual, group, or organizational). In measuring individual variables it is appropriate to administer tests or surveys to the individual being measured. Achievement tests would be appropriate in measuring the acquired abilities of the individual in order to assess his performance on the job. But a measure of ability will tell us very little about the motivation of the individual to actually perform.

Since cohesion necessarily involves the motivation of the individual to behave in a certain way, an attitude survey administered to the individual is more appropriate. Group variables, defined here as the measure of the variables concerning the unit whose cohesion process is being assessed (i.e., Platoon, Company, Battalion, etc.), can also be measured as a compilation of the individual variables within the group as expressed on individual attitude surveys. Group variables which may be obtained from other sources may not be accurate in terms of the individual

perceptions of members of the group. The individual perceptions of members of a group are real to that individual and are thus better indicators of motivation for behavior than those gathered from other sources.

This would explain why some units with high AWOL rates, DWI rates, etc., may exhibit a high degree of unit cohesion. These variables, which have been used as proxy indicators of group cohesiveness by some commanders, are not true indicators of cohesion at all because they are greatly influenced by other aspects of the group's situation and membership. This is because the wrong variables are being measured. Organizational variables, defined here as the variables attributed to units higher in the chain of command than the unit whose cohesion process is being assessed, can also be measured from a compilation of the individual variables within that organization following the same argument. The individual attitude survey is then the key instrument necessary for measuring the variables related to cohesion.

Two variables have been demonstrated to be related to cohesion by both experiment and survey. It has been demonstrated in the civilian and the military sectors that these two variables have positive correlations with cohesion. The first of these variables is continuity of personnel in the group. It has been demonstrated that individuals that are assigned together as a stable group for a longer period of time will facilitate the establishment of group norms to

which the individual will respond. Also, over time, the social pressures on the individual to conform to the group norm rather than being a deviant, who is ostracized by the group, increases. This has been realized by the Army and has resulted in such programs as COHORT and the Regimental System.

The second of these variables is the homogeneity of the group members. The more similar the individuals in a group are in terms of age, geographic origin, education, culture, experiences, etc., the more likely strong group norms will develop. There is also some evidence that group norms will develop more rapidly in homogeneous groups. In systematically trying to increase homogeneity of the group members to achieve cohesion it should be cautioned, however, that such an approach may result in complaints related to equal opportunity, etc., which could conceivably result in law suits.

National Guard and Reserve units, because of the geographic nature of their existence, may well benefit from the impact of this variable on unit cohesion. The existence of these two variables and their relevance to cohesion are quite well documented in the surveys and experiments referenced in the "Why Study Cohesion" section. Since the purpose of this research is not to rehash what is already known, but to identify new variables which will tell us more about the process of cohesion, it is necessary to identify

other variables which may facilitate the cohesion process, measure the existence of these variables in groups identified as possessing high or low cohesion, contrast the differences in the variables for high and low cohesion, and arrive at conclusions pertinent to the cohesion process.

A. HYPOTHESIS 1

The quality of intragroup communications positively correlates with group cohesion.

Rationale: The greater the quality of communications within the group the greater the probability that a group member will be aware of the group norms. The higher the quality of communications, the more likely the value systems of the individuals will be discussed and a discovery of shared objects in the ego ideal will take place.

Assuming that the member is motivated to remain a member of the group and will behave according to the group norms, member awareness of the norms should be directly related to the level of cohesion of the group. Similarly awareness of the attitudes and values of other group members, whether acquired through training about coworker cultures or through direct interpersonal contact, would positively effect cohesion. Consequently, units stationed overseas having foreign coworkers in the work group could expect greater cohesion if cultural training is given to U.S. service members and/or a common language is used. Also, the greater the amount of

voluntary extraordinary contact (defined as contact experienced off of the job such as unit picnics, happy hours, athletic sports activities, etc.) the higher will be the probability that attitudes and values which represent the group norms will be exchanged.

B. HYPOTHESIS 2

Knowledge of group performance positively correlates with group cohesion, especially if group performance is higher than the expected standard.

Rationale: In only some instances of work group performance in military groups is the level of group performance readily self evident. In an athletic team the performance of the team is readily self evident when the team wins or loses a game. Knowledge of this performance seems to bind the team together toward a common goal of winning. Positive performance knowledge (winning a game) is especially advantageous to the esprit of the team and is often exhibited by behavior displaying jubilation and even euphoria. The individual motivation toward achieving status through association with the group is key to this argument. If the status is unknown then the motivation may be low. Thus in military units knowledge by the group of inspection results, test results, and other performance standards should be beneficial to group cohesion. Performance feedback loops on cohesion of the group are thus viewed as

beneficial to cohesion in upward spirals and may be detrimental in downward spirals.

C. HYPOTHESIS 3

A commonly perceived environmental demand by the members of the group positively correlates with group cohesion.

Rationale: Individual motivations for seeking membership in the group to achieve security is key to this argument. If an environmental demand such as pressure from organizational leaders or the threat of survival in combat is perceived by all members of the group, then group norms should be developed within the group to counter the stress on the individual members of the group. If the survival of this stress is an object collectively held in the ego ideal of the group members, the norm will develop. Since the existence of the norm serves to offer security to the members of the group the individual motivation to conform to the group will be strong and the cohesion of the group should be increased.

D. HYPOTHESIS 4

All other factors being equal, the size of the group negatively correlates with the level of group cohesion.

Rationale: For a norm to be developed it is necessary that member attitudes and values correspond to the extent that the expected behavior is within the zone of indifference of the behavior of all members. This zone of

indifference is defined as the realm of behavior which an individual would freely engage in. Each individual's zone is therefore somewhat differently defined. As the size of the group increases, it should become more difficult for norms to develop resulting in lower group cohesion because there are more inconsistencies between the zones of indifference of group members. Discovery, through communication, of shared objects between all members of a group in their ego ideals becomes more difficult as more contacts must be made. Also as the size of the group increases awareness of norms, which are the shared attitudes and values of all members, will become more difficult. Fragmentation of the group into subgroups will also become more probable as the size of the group increases.

E. HYPOTHESIS 5

Supervisor credibility as perceived by the group positively correlates with group cohesiveness. Credibility is defined as the similarity between the group's perceived actual supervisor characteristics (technical expertise, use of authority, democratic vs. autocratic style, and task vs. people focus) as compared with the group's perceived appropriate supervisor characteristics under the group's operational conditions.

Rationale: Supervisors, due to their position, have the greatest potential for influence of the group norms. This

potential will only be realized if he (she) is credible and identified with by the group members. Military units operate with designated supervisors by virtue of the rank of the senior person assigned to the group. This is different than groups whose leader is popularly elected or who emerges over time as the strongest, most credible member of the group. As a result the credibility of the supervisor in a military unit is essential to maintain the cohesion of the group.

If the supervisor holds the same object in his ego ideal as the remainder of the group's members, he will be identified with as a legitimate member of the group. By virtue of his (her) rank and the hierarchical order in the ego ideal of the military professional, he will also be the legitimate supervisor. If the designated supervisor is not credible an informal leader may emerge which is identified with the informal norms of the group. As discussed earlier informal norms frequently transcend formal norms which serves to fracture the group into subgroups adhering to differing norms.

F. HYPOTHESIS 6

Group awareness of organizational goals positively correlates with group cohesion.

Rationale: Individual motivations to associate with the group for the purpose of achieving status is important to this argument. If an individual is not aware of the

organization's goals he is unaware of the proper behavior which will gain him status. If members of the group are unaware of the behavior which will gain them status a group norm which is consistent with gaining status cannot develop. If a norm does not exist which will gain status for the group's members individual motivations for association with the group and group cohesion will suffer. Conversely, knowledge of the organization's goals gives credence to group member's confidence in the organization's planning process, defines the necessary behavior to acquire status, supports the generation of norms to acquire status, and aids in group cohesion.

G. HYPOTHESIS 7

Perceived equity (of pay, evaluation and reward systems, working conditions, and living conditions [if provided] between members) will be positively correlated with group cohesion.

Rationale: Perceived equity of these elements prevents unnecessary interpersonal conflicts between members of the group. The existence of inequities creates conflict between group members and the underdog's individual motivation for continued association with the group will suffer and may even be of sufficient intensity to motivate him to disassociate with the group. It is apparent how the existence of such conditions can adversely affect group cohesion. On

the other hand the existence of equitable conditions can be argued to be supportive of cohesion.

The model thus generated by the evidence of research and the hypotheses herein stated is shown at Figure 2. This model indicates that weaknesses in one variable can be compensated for by the other variables and that cohesion is a linear combination of these variables.

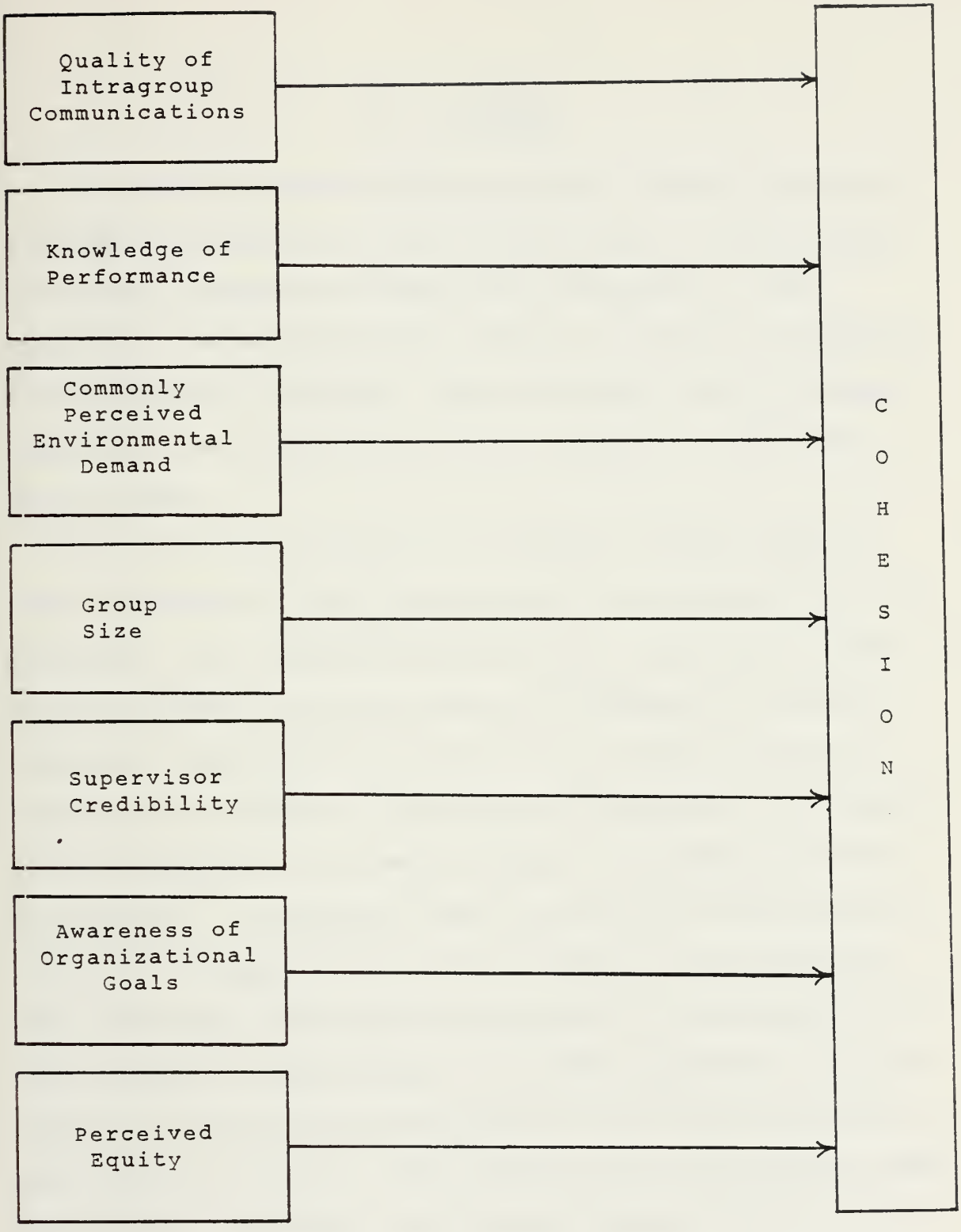


Figure 2. The Cohesion Model

VII. METHOD

The cohesion model as developed was tested through the statistical analysis of data collected by attitude surveys of members assigned to identified work groups. Each hypothesis was statistically analyzed in order to ascertain its relevance to cohesion. The net effect of all combined hypotheses was also statistically analyzed to test the entire model.

Table of Distribution and Allowance (TO&E) Companies were considered as the organizations to be studied for this research. The companies characterized a high rate of personnel turnover and heterogeneity of members of the work group were selected for study so as to offset as much as possible the effects of continuity of personnel and homogeneity of members of the work groups on the desired measure of cohesion. In applying these criteria for the selection of suitable companies for the research, it was determined that U.S. Army TO&E companies stationed in the Republic of Korea would be most suitable. Six TO&E companies were subsequently selected for the research from those stationed in the Republic of Korea. The companies were comprised of members of the U.S. Army, U.S. civilian General Service (GS) employees, Korean Augmentees to the U.S. Army (KATUSAs) attached for duty, Korean Direct Hire employees, and foreign

contractors as members of the work groups. U.S. Army personnel were generally rotated within a one year period. Company Commanders were asked to identify according to their own evaluation (Appendix A) the most and least cohesive subordinate work groups of their unit and rate their performance. These two work groups in each company were the targets of subsequent data collection efforts. This selection technique was used in order to insure a sufficient variation of cohesion in a minimal number of sample groups so as to minimize the cost and time necessary for data collection. It was recognized that, by only studying these extreme groups in a group comparison technique having so few data samples (twelve groups), reliable statistics on behavior might not be achieved. Research on a much larger scale would be required to make reliable statistical inference on behavior. Data collection was conducted using three different techniques: an attitude survey of assigned work group personnel; an interview of key work group members; and direct observation of the behavior of work group members.

The members of the work groups identified by the Company Commanders were administered a survey (Appendix B) designed to measure the variables necessary to test the hypotheses. Individual and unit anonymity were guaranteed in order to increase data validity. Several questions felt to be indicative of each of the variables to be measured were employed in the survey. These questions were formulated so

as to measure the individual's psychological drives which are the resultant combination of his individual motivations and his work group's norms.

The survey employed a Likert scale for ease of administration and for increased reliability of the variable measured. A modified version of Seashore's [Ref. 32] cohesion measuring instrument was incorporated into the survey to measure the level of cohesion in the work group because of its documented reliability and validity. A self report of group performance was also incorporated. The survey was translated into Korean and a review of the survey was conducted with Korean officer students of the Naval Postgraduate School. This was accomplished to verify the translation. An informal interview with these officers established the predicted relevance of the questions to the desired variables and served as a pre-test of the survey.

The survey was then administered by the researcher on location to each of the selected work groups. Not all personnel assigned to the work groups were available for the administration of the survey. However, supervisory personnel informed the researcher that they considered the sample available to be representative of the respective work groups. No attempt to collect data from those personnel not immediately available was made, in order to eliminate the potential data bias this may have created due to the inevitable effects of subsequent discussions of the survey by co-workers.

Although the survey employed an ordinal Likert scale it was assumed that a sufficient approximation of an interval scale was achieved for statistical use. Responses to each of the questions were factor analyzed using a variable maximizing axis rotation in order to verify the relevance of each of the questions to the desired variables. Pairwise deletion of missing data elements was employed in generating the correlation matrices for use in the factor analysis. Element projections greater than .6 on the factor axis were considered relevant to the factor. Irrelevant questions to the desired variables were discarded. The average of the relevant question scores produced relevant variable scores for each individual. Since individuals self weight their responses according to the significance of the question to the variable, this is the proper technique for obtaining individual variable scores according to Ewen [Ref. 33].

Relevant questions not responded to by individuals resulted in discarding of the related variable for that individual by listwise deletion. Cohesion and the predictor variables which had been hypothesized were considered to be work group characteristics. Work group scores for each of these variables were obtained by finding the average individual score of all individual respondents from each work group.

The implication of this approach is that each respondent within a work group has an equally valid perception of the

work group's characteristics. This approach is felt by the researcher to be more valid than using supervisory evaluations which may be influenced by their limited perspective or biased by their own self interests. Partial correlations were made using the group variable scores with cohesion as the criterion and the partials of the variables as the predictors. Multiple regression was also conducted to determine the total variance of cohesion explained by all of the other variables combined. Pearson's correlations coefficients were computed for each predictor variable of cohesion and T-test significance test were made. All data reduction was accomplished employing the Statistical Package for the Social Sciences [Ref. 34].

Key members of each work group were interviewed by the researcher on the same day that the attitude survey was administered. The personnel defined as being key were the most senior personnel available representing each of the work group factions: members of the U.S. Army, U.S. civilian General Service employees, KATUSAs attached for duty, Korean Direct Hire employees, and contractors. These personnel were selected for interview because of their positions of power (influence) and authority, their experience, and their maturity. The interview employed a moderately scheduled technique as per Gorden [Ref. 35] which employed a general structure of open ended questions providing opportunity for additional probes. Individual and group

anonymity were again guaranteed in order to increase data validity. Questions were neutrally worded and presented in order to encourage complete and more valid responses. This was especially necessary due to the differences in rank between the interviewer and interviewees. Handwritten notes were taken at the time of the interview. The results of these interviews were used for substantiation and interpretation of the reduced survey data during data analysis.

Direct observations of behavior were also made by the researcher during the course of his visit to the work groups. The relevance of these behaviors to cohesion and the other desired variables was immediately interpreted by the researcher and documented in handwritten notes for future use. During data analysis of the survey data, the interpretations of these observations were used for substantiation and interpretation of the survey data.

VIII. RESULTS

The results of the Company Commander's Survey (Appendix A) which selected the work groups to be surveyed and provided other pertinent information about the work groups are shown at Appendix C. The design of the survey questionnaire (Appendix B) was intended to measure work group cohesion, work group productivity as perceived by the members of the group, and the variables associated with each of the seven hypotheses. The questions intended to measure each of the variables are shown in Table 1. It should be emphasized that the measure of these variables by the questions indicated was intended by the questionnaire design which took place before its administration or any manipulation of the collected data. The results of the attitude survey were numerically coded for computer entry (Appendix D).

The factor analysis of this data resulted in the identification of eight factors. These factors were identified by applying the selection criterion discussed in the previous section that the responses to the questions of the survey must have a projection of at least .6 on the identified factor axis. The factors identified meeting this criterion are shown in Table 2. The results of the factor analysis are shown in Appendix E. The implications of this factor analysis is that the responses to the questions are conceptually

Table 1

QUESTIONNAIRE DESIGN OF QUESTIONS INTENDED TO MEASURE VARIABLES

Variable	Hypothesis	Questions
Cohesion	All	1,2,3A,3B,3C
Productivity	--	3D
Intragroup (Interpersonal) Communications	1	4,5,6,7,8,9,13,14
Knowledge of Performance	2	10,11,12
Environmental Demand	3	15,16,17
Size	4	*
Supervisor Credibility	5	18,19,20,21,22,23,24
Organizational Awareness	6	25,26,27
Equity	7	28,29,30,31

*determined by Company Commander Survey (Appendix A) response and verified during interview at time of administration of survey by the researcher.

Table 2

RELATIONSHIP BETWEEN FACTORS AND HYPOTHESIZED VARIABLES

Factor	Variable Name Assigned	Questions	Hypothesis
1	Supervisor Credibility	18,19,20,21,22,23,24	5
2	Cohesion/Productivity	3A,3B,3C,3D	All
3	Knowledge of Performance	10,11,12	2
4	Organizational Awareness	26,27	6
5	Equity	28,29	7
6	Sociability	6,7	1
7	Interpersonal Relations with Koreans	8,13	1
8	Environmental Demand	16,17	3

Note: The variable "size" for hypothesis 4 was acquired from another source.

linked in the mind of the respondent. It must be emphasized that this is a mathematical technique which must be interpreted prior to acceptance for an application in the behavioral sciences. Factor analysis is incapable of distinguishing between separate variables that are closely dependent upon each other but are rationally very different variables. Using demographic data from the survey, factor analysis was also conducted by category of the respondents. This confirmed the heterogeneity of the sampled population as intended by the research design. Categories resulting in significantly diverse factors are included in the results of Appendix E.

In comparing the questions intended to measure variables by the survey design (Table 1) with the implied measure of the questions as a result of the factor analysis (Table 2), it is apparent that interpretation of the factor analysis was warranted before proceeding further. In factor 2 actual productivity as referred to in question 3D is rationally much different than the way workers get along together, stick together, and help each other on the job as referred to in questions 3A, 3B, and 3C. In the judgement of the researcher these concepts representing productivity and cohesion are rationally distinct and should be separated.

It is the opinion of the researcher that in the data sample productivity and cohesion were so closely dependent upon each other that factor analysis was incapable of

distinguishing them. In interpretting which factor was a suitable proxy for the hypothesized variable of Intragroup (Interpersonal) Communications (Table 1), it was necessary to consider factors 6 and 7. Factor 6, which is associated with questions 6 and 7, deals with American and Korean social function. Factor 7, which is associated with question 8 and 13 deal exclusively with interpersonal relations with Koreans. It is the opinion of the researcher that the characteristics of factor 6 (Sociability) most closely approximates the hypothesized variable (Intragroup (Interpersonal) Communications). It was therefore accepted and used in this research. The scores of the questions relevant to each variable were added together for each case (individual respondent to the questionnaire) and divided by the number of questions associated with that variable. If an individual did not respond to all questions relevant to a factor, an individual score for that variable was not computed and that case was eliminated from further statistical computations involving that variable. This had the effect of keeping the scores of all variables in the range of the original Likert scale of the survey (1 to 5). These individual scores were then subjected to further statistical manipulation.

Individual scores for each variable were then sorted according to the work group the respondent was assigned to. The mean variable score of the individuals assigned to each

of the work groups for each of the variables was computed and is shown in Appendix F. A ranking of work groups according to their Group Cohesion Score is provided in Table 3 for the purpose of distinguishing more cohesive work groups from less cohesive work groups in future conversations. As discussed earlier, the implication of this approach is, that each individual's response to a given question, about a characteristic of the work group to which he (she) is assigned, is equally valid. The variances of the variable scores for each of the work groups are also shown.

The mean individual scores of the individuals assigned to each work group for each variable were taken as the group score for that variable. For example in company 1, work group 1 the mean score of the individual levels of cohesiveness felt was 4.429 and was accepted as that group's score for the group level of cohesion. Partial correlation and statistical significance tests employing a T test were conducted using cohesion as the dependent variable and the hypothesized variables as the independent variables. Results of these computations are shown in Table 4.

Of added interest to the researcher were the relationships between cohesion and the group perception of productivity and between cohesion and the Company Commander's perception of group productivity. Partial correlations and statistical significance tests were conducted employing group

Table 3

RANKING OF WORK GROUPS BY GROUP COHESION SCORE

Company Designation	Company Commander's Prediction of Work Group Cohesion (Work Group Designation)	Group Cohesion Score
1	Highest (1)	4.429
4	Highest (1)	4.212
5	Highest (1)	4.200
2	Highest (1)	4.167
6	Highest (1)	4.152
2	Lowest (2)	4.012
1	Lowest (2)	3.889
4	Lowest (2)	3.846
5	Lowest (2)	3.729
3	Lowest (2)	3.630
6	Lowest (2)	3.568
3	Highest (1)	3.458

Table 4

RELATIONSHIPS BETWEEN HYPOTHESIZED VARIABLES AND COHESION

	Partial Correlation			Multiple Correlation		Significance
Hypothesized Variable	b	Simple r	Simple r^2	Multiple R	Multiple R^2	T test (P)
Environmental Demand	-.0128	-.1680	.0282	-.1680	.0282	.308
Sociability	.6649	.3749	.1406	.4048	.1638	.128
Knowledge of Performance	.5575	.4213	.1775	.5147	.2649	.085
Size	.0016	.3621	.1311	.5226	.2731	.109
Supervisor Credibility	.5252	.5414	.2931	.6753	.4560	.033
Organizational Awareness	-.9136	-.1197	.0143	-.8680	.7534	.472
Equity	-.4943	-.2705	.0732	-.8951	.8013	.142

(a=2.3348)

cohesion as the independent variable. The results of these computations are shown in Tables 5 and 6.

Table 5

RELATIONSHIP BETWEEN COHESION AND GROUP PERCEPTION OF PRODUCTIVITY

		Partial Correlation		Significance
Independent Variable	b	Simple r	Simple r^2	T test (P)
Cohesion	.4482	.4791	.2295	.058
	(a=2.4845)			

Table 6

RELATIONSHIP BETWEEN COHESION AND COMMANDER'S EVALUATION OF PRODUCTIVITY

Independent Variable	b	Partial Correlation		Significance
		Simple r	Simple r^2	T test (P)
Cohesion	1.223	.5688	.3236	.071
	(a=-.3716)			

IX. ANALYSIS

In analysing the results of this research a heavy reliance on inference as a result of statistics was made. For the benefit of the reader a short review of the meaning of statistical terminology is provided.

In partial correlation b is the slope of the line best fitting the data points with the dependent variable plotted on the vertical axis and the independent variable plotted on the horizontal axis. The Pearson correlation coefficient (Simple r) is a measure of the strength of the relationship between the dependent variable and the independent variable. The square of the Pearson correlation coefficient (Simple r^2) defines the proportion of the change in the dependent variable which is explained by the data points of the independent variable.

In multiple correlation the multiple correlation coefficient (Multiple R) is a measure of the strength of the relationship between the dependent variable and the cumulative effects of the independent variables. This includes the effects of the independent variables individually and the interaction of the independent variables with each other. The square of the multiple correlation coefficient (Multiple R^2) defines the cumulative proportion of the

change in the dependent variable which is explained by the use of the data points of the independent variables.

In significance testing employing a T test a normal distribution of values of the dependent variable is assumed for each value of the independent variable. Determination of the confidence level of this distribution is limited by the number of known data points (in the case of this research, 12 groups). An approximation of the assumed normal distribution is constructed and a probability (P) is determined which is the probability that the data points are the results of chance events. An alternative interpretation is that P is the risk of accepting that the dependent and independent variables are not actually related according to the calculated parameters (b, Simple r, and Multiple R).

The analysis was made within the context of the assumptions made in the research design. Briefly these assumptions included:

1. That an attitude survey is an appropriate indication of reality and is more valid in measuring work group characteristics than other measures currently in use.

2. That the Likert Scale employed in the attitude survey is a close enough approximation to an interval scale for statistical purposes.

3. That the sample of data collected from each work group is representative of the population of that work group.

4. That the responses of each individual in a work group is equally valid although from different perspectives. This resulted in

the mean of the individual scores regarding a variable being representative of the group as a whole.

Accepting these assumptions an analysis of the hypotheses then becomes possible.

A. HYPOTHESIS 1

Quality of intragroup communications positively correlates with group cohesion.

Analysis: As a result of factor analysis it was found that the questions of the attitude survey which were intended to measure this variable did not cluster into a single factor. The interpretation of this is that in the minds of the respondents the questions were not conceptually closely related. The two factors which emerged from the factor analysis related to the questions intended to measure this variable were factors 6 and 7 (See Tables 1 and 2). Factor 6 was related to questions 6 and 7 and was considered to be indicative of the level of group sociability. Factor 7 was related to questions 8 and 13 and were considered to be indicative of the level of interpersonal relations with Koreans. Since factor 7 dealt only with interpersonal relations with Koreans rather than with both Koreans and Americans, factor 6 was selected as the best proxy of the desired variable. As a consequence of this selection and the wording of the relevant questions (6 and 7), the frequency of exposure to social functions in which

intragroup (interpersonal) communications could take place was measured rather than the quality of intragroup communications. While sociability was an unintended variable, its b value was .6649. This means that for the sample of twelve work groups an increase of .6649 in cohesion was associated with each increase of one unit in sociability. The Simple r^2 of .1406 indicates that 14.06% of the variation in cohesion is associated with changes in sociability. The probability that these relationships were the result of chance was .128 based on the data from the twelve work groups.

During the interviews of the work groups it was noted that the more cohesive work groups gave indications of conducting more social functions (picnics, parties, happy hours, hails and farewells, etc.) than the less cohesive work groups. From the data it is impossible to conclude if cohesion causes sociability in a work group or sociability causes cohesion in a work group. Intuitively it seems to the researcher that the number of social functions conducted by a work group is largely controlled by the work group leader's desires with a lesser influence by the work group's desires. Although it is likely that work group cohesion has a limited effect on sociability, it seems evident that sociability is a predictor of cohesion.

While the survey resulted in the tangential measure of the hypothesized variable, it is felt that the interviews

resulted in the collection of more pertinent data. More cohesive work groups reported frequent interpersonal communications involving such subjects as religion, politics, economics, philosophy, etc. These heavily value-laden subjects undoubtedly resulted in a sharing of value systems among the communicants. The quality of communications in these groups was thus evaluated to be quite high. These groups also reported that when differences in value systems among individuals became evident there was a mutual respect for the right of the other to retain his beliefs and interpersonal conflicts were generally avoided. In less cohesive groups the frequency of such communications was reported to be much lower. When such communications were reported, interpersonal conflicts were frequently reported as the result. The results of the interviews indicate that the intent of the original hypothesis was substantiated.

B. HYPOTHESIS 2

Knowledge of group performance positively correlates with group cohesion, especially if group performance is higher than the expected standard.

Analysis: As a result of factor analysis factor 3 (Questions 10,11, and 12 of the survey) were found to be indicative of the desired variable. The b value of this variable was found to be .5575 indicating that an increase of .5575 in cohesion was associated with each increase of

one unit in knowledge of group performance. The Simple r^2 of .1775 indicates that 17.75% of the variation in cohesion is associated with changes in knowledge of group performance. The probability of .085 that these relationships was the result of chance was obtained

Knowledge of group performance is an indication of the amount of feedback the members of a work group receive from their organization regarding productivity. This knowledge is acquired by the work group members either directly from organizational representatives or through other work group members who communicate knowledge which originated from organizational representatives. During the interviews it was evident in most cases of a more cohesive group that greater concern was exhibited to insure that all members of the work group received feedback regarding work activities and productivity evaluations. This was strikingly exemplified by an E-2 who during the interview stated, "We're good and we know we're good!" It seems intuitively obvious to the researcher that organizational feedback to members of the work group resulting in their knowledge of productivity as assessed by the organization causes cohesion in the work group. This seems obvious since to assume that work group cohesion causes the organization to provide feedback regarding group productivity would be irrational.

C. HYPOTHESIS 3

A commonly perceived environmental demand by the members of the group positively correlates with group cohesion.

Analysis: As a result of factor analysis, factor 8 (question 16 and 17) was identified as the factor representing the variable environmental demand. The b value of environmental demand was calculated as -.0128 which indicated a decrease of .0128 in cohesion level was associated with an increase of one unit in environmental demand. The Simple r^2 of .0282 indicates that environmental demand accounts for 2.82% of the variance in cohesion. The significance test showed a probability of .308 that the relationships between environmental demand and cohesion are the result of chance.

During the interview sessions less cohesive work groups commonly reported that conflicts with the chain-of-command were either ignored or accepted without resolution. This approach to conflict management commonly created more stress on the individual members of the work group. This led to more mental pressure being felt and an increased sense of pressure from the organization. The concept of one (or more) organizational leader being unapproachable concerning conflict resolution between the organization and work group was commonly reported. Generally, in more cohesive work groups, conflicts with the organization and the chain-of-command were resolved through rational discussions with

organizational leaders. They also reported fewer conflicts with the chain-of-command.

D. HYPOTHESIS 4

All other factors being equal, the size of the group negatively correlates with the level of cohesion.

Analysis: The b value of the variable size was calculated as .0016 indicating an increase of .0016 in cohesion was associated with each additional members increase in the size of the work group. The Simple r^2 of .1311 indicates that 13.11% of the variance in cohesion is associated with changes in the size of the work group. A 10.9% probability was found that these characteristics were arrived at as a result of chance. It was observed during the administration of the survey that as the size of the work group increased, the rank and experience of the supervisors also increased. This is typical of the managerial practice of hierarchical organizations and was expected by the researcher. It was observed that managers had more interactions with their larger work groups than with smaller ones. This resulted in more participative organizational planning and a perception of greater attention to the allocation of resources for larger work groups.

E. HYPOTHESIS 5

Supervisor credibility as perceived by the group positively correlates with group cohesiveness. Credibility is

defined as the similarity between the group's perceived supervisor characteristics (technical expertise, use of authority, democratic vs. autocratic style, and task vs. people focus) as compared with the group's perceived appropriate supervisor characteristics under the group's operational conditions.

Analysis: Factor analysis revealed that factor 1 (questions 18 through 24) was identified as the factor associated with the variable Supervisor Credibility. The b value calculated for this variable was .5252 meaning that an increase of .5252 in cohesion is associated with each increase in a unit of supervisor credibility. The Simple r^2 of .2931 indicates that 29.31% of the variation in cohesion is associated with changes in supervisor credibility. A 3.3% risk is assumed in accepting these relationships.

During interviews it was determined that in less cohesive work groups interpersonal conflicts between group members and supervisors were frequently ignored or dealt with by autocratic means. Two observations of beligerant behavior by subordinates toward supervisors were made in less cohesive work groups. The credibility of supervisors as perceived by Korean National employees in one work group had also been deteriorated by a recent reduction-in-force which eliminated some Korean National employee positions. During interviews it was determined that psychological contracts between employer and employee in the Korean culture results

in expectations of permanent employment. It was also determined that the loss of one's position has increased significance in the Korean culture when compared to an American employee. The Korean culture is characterized by very strong norms concerning social strata. This concept is deeply rooted in the Confucian religion, which has had a very strong influence on the Korean culture. A position of employment with the American government is viewed as having a higher status in the social strata than a similar position of employment with any other organization. The result of this is that the loss of employment with the American government is not only interpretted by a Korean as breaking of a psychological contract but also results in the loss of social status. The loss of social status is equivalent to a loss of pride, honor, self respect, and the respect of others which is disgraceful to one's family and ancestry.

The Confucian religion stresses the importance of friendships which results in interpersonal relationships between Koreans which are much stronger than those typically experienced by Americans. These friendships generally develop within a social strata such as between classmates at a school and coworkers at a job. The workers remaining in the work group where the reduction in force had occurred displayed a great deal of empathy for their former coworkers and attributed the cause of the job actions to their immediate American supervisors. In more cohesive work groups

the interviews disclosed that conflicts between work group members and supervisors were generally dealt with directly. No observations of belligerent behavior were made in more cohesive work groups.

Observations by the researcher during the administration of the survey and interviews indicated that some of the supervisors, which were subsequently found to be most credible by the survey results, were subjectively judged to be autocratic in their leadership style.

In view of the high correlation between supervisor credibility and group cohesion, this flies in the face of much of the current leadership theory. The explanation of this can be found from a perspective known as situational leadership. Simply stated this perspective theorizes that appropriate leadership behavior by a supervisor as perceived by subordinates is tempered by the situation in which the group uniquely perceives itself in its environment. Identification of the key variables to this situation is the subject of much research by leadership theorists. Although it was beyond the scope of this research it was found to exist.

F. HYPOTHESIS 6

Group awareness of organizational goals positively correlates with group cohesion.

Analysis: Factor analysis revealed the existence of factor 4 (questions 26 and 27) which is the factor associated

with the variable Organizational Awareness. The calculated b value of -.9136 indicates that a decrease of .9136 in cohesion is associated with each increase of a unit in organizational awareness. The Simple r^2 value of .0143 indicates that 1.43% of the variance in cohesion is explained by changes in organizational awareness. The probability of these characteristics being the result of chance was determined as .472. This high probability of chance indicates that, at least as far as this research data is concerned, group awareness of organizational goals and cohesion are not related. During interviews it was determined that some of the more cohesive groups were more autonomous than less cohesive groups. Apparently organizational leaders perceived that more cohesive groups exhibited more competence and were capable of more autonomous operation with less supervision and guidance. A lesser awareness of organizational plans and goals was the result. These results are consistent with management by exception. This form of management is used when the manager concentrates attention on problem areas. Improvements in areas demonstrating acceptable standards are often forgone by this approach to management.

G. HYPOTHESIS 7

Perceived equity (of pay, evaluation and reward systems, working conditions, and living conditions (if provided)

between members) will be positively correlated with group cohesion.

Analysis: The factor analysis revealed the existence of factor 5 (questions 28 and 29) as being related to the variable equity. A b value of -.4943 was calculated meaning that a decrease in cohesion of .4943 was associated with each unit increase in equity. The Simple r^2 of .0732 means that 7.32% of the variance in cohesion is associated with changes in equity. A probability of .142 was computed that these relationships were the result of chance. During the interviews and through observations the existence of strong friendships among the Korean National Employees was evident. The dedication to the maintenance of such friendships in the Korean culture is very great. The result of these friendships is generally a very cohesive element of Korean National employees within a work group. Considerable concern was expressed during interviews by Korean National employees regarding the perceived equity of promotions and the potentials for career development. Not to tolerate these perceived inequities would result in the loss of employment with the American government which would reduce association with close friends and the concomitant loss of social status as discussed earlier.

A cultural norm of being unassuming and tolerant of those in positions of power is very strong in the Korean culture. Another norm involves maintaining one's own

dignity and self respect. These norms are encompassed within a Korean proverb which translates to "A righteous man never gets rich" [Ref. 36]. The result of these conditions is the existence of cohesive elements within work groups who perceive inequities but tolerate them. The impact of these culturally based occurrences on the data applying to this hypothesis is undeniable.

The cumulative results of the incorporation of the seven hypothesized variables was computed as having a Multiple R^2 of .8013. This means that the seven hypothesized variables combined (including their interactions with each other) associates 80.13% of the variance in cohesion with changes in the hypothesized variables.

In determining the relationships between cohesion and the group perception of productivity a b of .4482 was computed indicating a .4482 change in the group perception of productivity is associated with a change of each unit in cohesion. A Simple r^2 of .2295 indicates that 22.95% of the variance in group perception of productivity is associated with changes in cohesion. A probability of .058 was determined that these relationships were the results of chance.

The relationships between cohesion and Company Commander's perception of group productivity were calculated with a b value of 1.223 indicating a 1.223 change in perceived productivity is associated with each unit change in cohesion. A Simple r^2 of .3236 indicates that 32.36% of the

variance in the Company Commander's perception of work group productivity is associated with changes in cohesion. There was a probability of .071 that these relationships were the result of chance.

An additional point of interest concerns the demonstrated existence of group norms. This is evidenced in a review of the variances in the individual variable scores in Appendix E. The stronger group norms concerning a specific variable is evidenced by a smaller variance (variation in the responses of individual members of the work group). For example, in comparing the two work groups in company 1 regarding the variable "Individual Level of Cohesiveness Felt," work group 1 has a variance of .175 indicating a stronger norm toward the questions associated with that variable than work group 2, which had a variance of .391. Generally the stronger norms appear to be present in the more cohesive groups but there is not a method of determining the direction of the norm or its actual effect on individual behavior. For this reason it was not incorporated into the statistical formuli for determination of the relationships between cohesion and the hypothesized variables.

X. CONCLUSIONS AND RECOMMENDATIONS

Hypotheses were evaluated using as a criterion the sign of the calculated Simple r by Partial Correlation of the independent variables.

Hypothesis 1 involving the "quality of intragroup communications," (which was subsequently redesignated "sociability" as a result of factor analysis) was found to be positively correlated with group cohesion as predicted.

Hypothesis 2 which involved the group's knowledge of their evaluated performance by organizational leaders in the form of performance feedback was found to be positively correlated with group performance as predicted.

Hypothesis 3 predicted that when group members had a common perception of environmental demand manifested in the form of mental pressure from sources outside the group there would be a positive correlation with group cohesion. This was not substantiated by the data and hypothesis 3 can not be accepted as a result of this study.

Hypothesis 4 predicted that the size of the group would correlate negatively with group cohesion if all other factors were equal. Again this was not substantiated by the data from this study and can not be accepted.

Hypothesis 5 involving the credibility of group supervisors as perceived by group members was found to be

positively correlated with group cohesion as predicted and was accepted.

Hypothesis 6 predicted that awareness by the group of organizational goals would be positively correlated with the group's level of cohesiveness. The research data did not substantiate this prediction and hypothesis 6 can not be accepted based on this research.

Hypothesis 7 predicted that group member perceptions of equity involving pay, evaluation and reward systems, etc., in the treatment of other group members would be positively correlated with group cohesion. This was not substantiated by the data of this research.

Table 7 summarizes the status of the hypotheses resulting from this research.

While the analysis indicates that results were often contradictory to those hypothesized and expected by the researcher, it must be pointed out that the risk (T-test probability that the relationships were due to chance) was relatively high in relationships between cohesion and the independent variables. It is felt that these low indicators of significance are primarily the result of the research design in that the number of work groups in the sample (twelve) was not large enough to gain higher statistical significance.

The original objective was to identify those variables which are closely related to cohesion. This objective has

Table 7

RESULTANT STATUS OF HYPOTHESES

Hypothesis	Independent Variable	Status
1	Intragroup (Interpersonal) Communications*	Accepted
2	Knowledge of Performance (Performance Feedback)	Accepted
3	Environmental Demand (Mental Pressure from Outside the Group)	Not Accepted
4	Size	Not Accepted
5	Supervisor Credibility	Accepted
6	Awareness of Organizational Goals	Not Accepted
7	Equity	Not Accepted

*As a result of factor analysis this variable was redesignated "Sociability"

been attained. The question which remains is "OK, now what do we do with that information?" The author sees four primary alternatives to be considered for implementation in view of the outcomes of this research.

A. ALTERNATIVE 1

The first alternative is to do nothing. To do nothing would be appropriate if the cohesion model developed and used in this study is deemed to be inappropriate and the results and analysis of the research are deemed to be biased to the extent that they are not credible. It is the author's opinion that this alternative would ignore significant findings and condemn the U.S. Army to continued lack of understanding regarding the cohesion process. The relevance of group cohesiveness to the group perception of productivity and the unit commander's evaluation of productivity, when the group norm is in the same direction as the organization's goals, has been demonstrated by this study. If the research referenced earlier had been interpreted from this perspective, the researcher suspects that it would have been more consistent in its conclusions regarding the advantages of cohesion. The perspective which this research provides should not be ignored and the alternative of "do nothing" should be rejected.

B. ALTERNATIVE 2

A second alternative regarding the results of this research would be to study the model of cohesion further. This would be the most conservative approach which is seen as potentially acceptable to the U.S. Army. It involves the least risk to the Army and requires the least commitment of resources relevant to the independent variables to which this research addressed itself. By accepting this approach it could be determined if similar results utilizing the same cohesion model are obtained in other TDA units throughout the world. If the cultural uniqueness of the Korean situation influenced the validation of the model in this research, this could also be discovered. Ideally this alternative would involve commissioning research of sufficient scope to validate the cohesion model with samples of all Table of Distribution and Allowance U.S. Army units assigned worldwide. The major disadvantage of this alternative is that the potential advantages of cohesion in TDA units will be forgone while the model is being studied.

C. ALTERNATIVE 3

A third alternative would be to implement limited programs based upon the cohesion model while continuing to study and refine it further for future implementation on a wider scale. This alternative would also ideally be of sufficient scope to validate the cohesion model on a wider

basis than the present research. This would assume a moderate amount of risk and resources. To implement this alternative would require that a variety of TDA units be identified preferably which are distributed throughout the world. These units would then be subjected to special treatment through the implementation of management programs which are consistent with the cohesion model developed in this research. For example, supervisors could be trained by Organizational Effectiveness Staff Officers on the implications of their perceived credibility as it applies to cohesiveness of their work groups as well as the impact that cultural differences and other heterogenous characteristics of group members may have on these perceptions. Data on cohesiveness, productivity, and the variables inherent in the cohesion model would be collected. This alternative would provide an opportunity for some units to benefit from the expected increase in cohesion while the model is being refined and validated on a wider scope than the current research. The applicability of the model to other than the Korean situation would also be determined prior to implementation of an Army-wide program under this alternative.

D. ALTERNATIVE 4

A final alternative would involve implementation of an Army-wide system of programs consistent with the cohesion model. This alternative could be the most responsive to the

Army in terms of increasing cohesion. It would also be the most risky alternative and the most costly if the model is found to be uniquely applicable only under certain conditions. This alternative would involve teaching of the cohesion model by the Leadership Departments of all Training and Doctrine Command Schools to all Officer Basic and Advanced Courses and all Non-Commissioned Officer Education System Courses. In order to accept this alternative, it would be necessary that the model be received as being completely valid under all situations.

In view of the results of this research and the fact that some of the results of the data collected in Korea was inconsistent with the predictions of the model it would not be appropriate at this time to accept the model for an Army-wide system of programs. The last alternative is therefore rejected. As discussed earlier it was felt that the Korean situation under which this research was conducted was a worst case situation in terms of building work group cohesion.

It is felt that the high personnel turnover rate and heterogeneity of work group members creates an especially challenging environment for creating cohesion. The fact that, in spite of the failure of parts of the cohesion model to predict effects on cohesion in the Korean situation, it was able to account for a total of 80.13% of the variance in cohesion is of considerable credit to the model.

The situational uniqueness of the Korean environment may be such that if the cohesion model were applied in other situations it may be completely valid. In view of the correlations in this and other research between productivity and cohesion when the group norms are in the direction of productivity the first alternative is rejected.

If the second alternative is accepted the necessary verification of the model in other than the Korean environment would take place. The benefits of increased cohesion in selected units would not be realized, however. For this reason the second alternative is rejected.

The third alternative requires a limited acceptance of the cohesion model and should produce beneficial cohesion for those units selected while verifying the model in a variety of situations. For this reason acceptance of the third alternative is recommended. Units to be selected should be picked for their diversity of situation. This will assist in validating the applicability of the model to various situational characteristics. Measures of cohesion and the independent variables should be made within each work group of the selected units. Organizational Effectiveness Staff Officers could then conduct a series of interventions in these units which are designed to improve the characteristics of the independent variables. After the unit's personnel have had sufficient time to respond to the interventions a second measure of cohesion and the

independent variables should be made. A comparison between the first and second measurements should verify the utility of trying to systematically manage the independent variables of the model in an effort to increase cohesion.

The author, as a result of this research, has become more expert in predicting the effects of variables on the cohesiveness of work groups. As a result of the learning process which occurred in conducting this research, he recommends that a minor but significant modification of his cohesion model be employed in any future studies which utilize his model. He recommends that the variable "supervisor credibility," which is the composite of the group member's perceptions of the appropriateness of their supervisor's leadership style, focus, etc., be considered as a moderating or intervening variable. This would have the effect of making supervisor credibility a prerequisite to the achievement of group cohesion and would negate the impact of all other variables if it is not present. This recommendation is made because of the extremely high significance which this research found it to have on group cohesiveness.

The U.S. Army has also recently reported [Ref. 37] in field research that unit cohesion is dependent on "good leadership" when enhancements in cohesion are attempted through increasing the continuity of personnel in the unit. The lack of supervisor credibility in the form of "good leadership" is attributed to lower unit cohesion than

anticipated as well as lower productivity resulting in the need for additional training and expenditure of resources [Ref. 38]. A modified version of the cohesion model as recommended by the researcher is offered in Figure 3. It includes the other primary variables discussed in this thesis which are related to the cohesion development process.

As a potentially beneficial characteristic of work groups and units leading to higher productivity, cohesion should continue to be studied for systematic application in all U.S. Army units. A generalized model of cohesion, such as has been developed in this study, should prove itself as beneficial to continued research and application in Table of Distribution and Allowance units as well as Table of Organization and Equipment units.

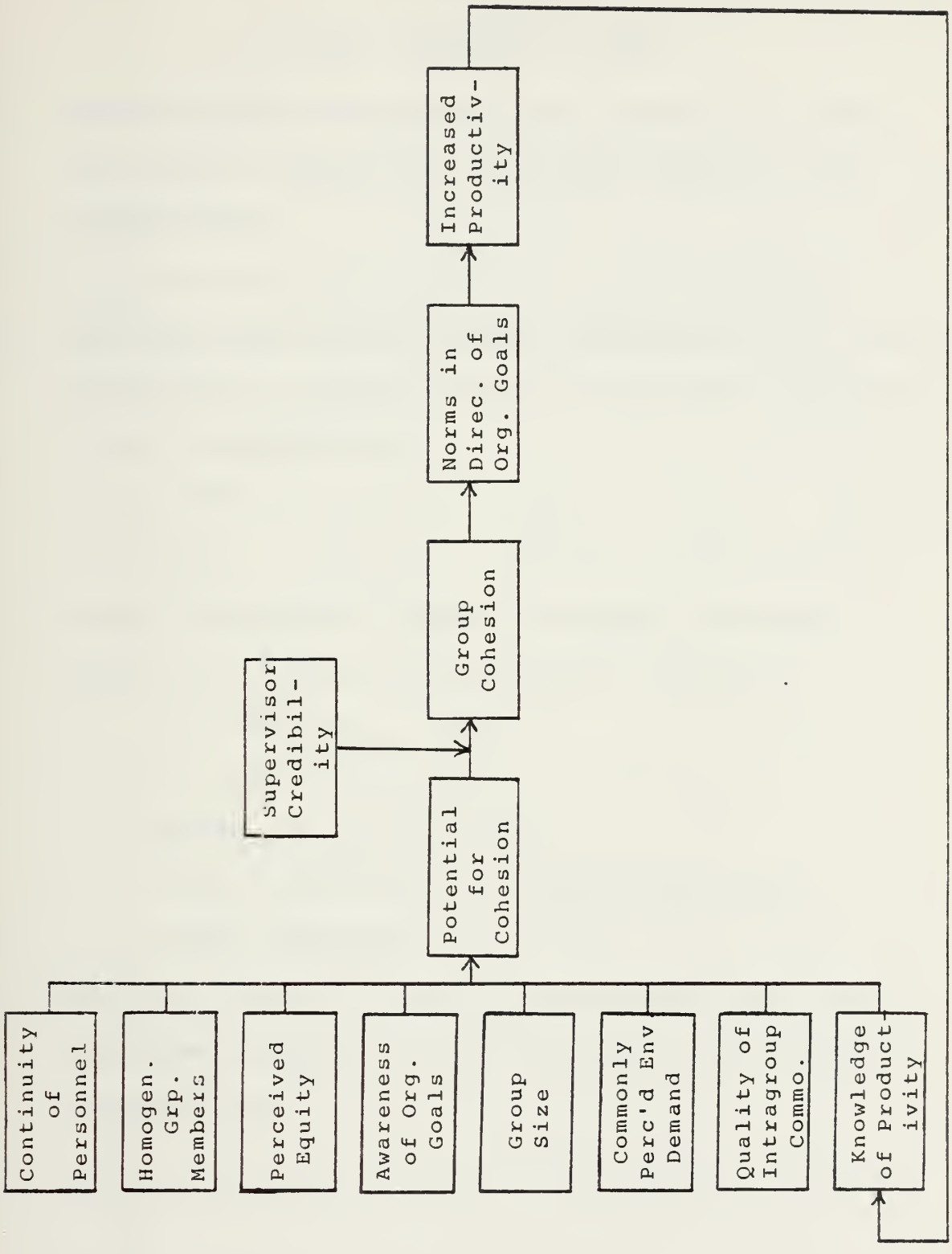


Figure 3. The Modified Cohesion Model

APPENDIX A

COMPANY COMMANDER'S SURVEY

1. Which of your work groups do you designate as having the lowest cohesion of all the work groups in your organization?

_____

2. How would you rate the mission performance of the group designated in 1 above compared to the other work groups in your organization?

lowest 20%	21-40%	41-60%	61-80%	top 20%
_____	_____	_____	_____	_____

3. Please indicate the currently assigned personnel strength of the group designated in 1 above.

U.S. military_____

U.S. civilian_____

KATUSA_____

Korean civilian (Direct Hire)_____

Korean contractor_____

4. Which of your work groups do you designate as having the highest cohesion of all the work groups in your organization?

_____

5. How would you rate the mission performance of the group designated in 4 above compared to the other work groups in your organization?

lowest 20%	21-40%	41-60%	61-80%	top 20%
_____	_____	_____	_____	_____

6. Please indicate the currently assigned personnel strength of the group designated in 4 above.

U.S. military_____

U.S. civilians_____

KATUSA_____

Korean civilian (Direct Hire)_____

Korean contractor_____

APPENDIX B

INDIVIDUAL SURVEY QUESTIONNAIRE

PART I

Place an "X" in the space corresponding to your opinion.

1. Do you feel that you are really a part of your work group?

____Really part of my work group

____Included in most ways

____Included in some ways, but not in others

____Don't feel I really belong

2. If you had a chance to do the same kind of work for the same pay, in another work group, how would you feel about moving?

____Would want very much to move

____Would rather move than stay where I am

____Would make no difference to me

____Would rather stay where I am than move

____Would want very much to stay where I am

3. How does your work group compare with other work groups in your organization on each of the following points?

    a. The way workers get along together?

    ____Much better than most

    ____Better than most

    ____About the same as most

    ____Not as good as most

    ____Much worse than most

b. The way workers stick together?

____Much better than most

____Better than most

____About the same as most

____Not as good as most

____Much worse than most

c. The way the workers help each other on the job?

____Much better than most

____Better than most

____About the same as most

____Not as good as most

____Much worse than most

d. Mission performance?

____Much better than most

____Better than most

____About the same as most

____Not as good as most

____Much worse than most

PART II

Using the following key place a number in the space provided for each question:

1-Never 2-Seldom 3-Sometimes 4-Often 5-Always

____4. How frequently do you participate with your Korean coworkers in competition (i.e., card games, pool games, athletic events, etc.)?

____5. How frequently do you participate with your American coworkers in competition (i.e., card games, pool games, athletic events, etc.)?

____6. How frequently do you voluntarily participate in work group social functions (i.e., picnics, parties, happy hours, hails and farewells, etc.) with your Korean coworkers?

____7. How frequently do you voluntarily participate in work group social functions (i.e., picnics, parties, happy hours, hails and farewells, etc.) with your American coworkers?

____8. How frequently do you talk to your Korean coworkers about your personal life?

____9. How frequently do you talk to your American coworkers about your personal life?

___10. How frequently are you made aware of the results of inspections of your work group?

____11. How frequently are you made aware of the results of your work group's performance on readiness exercises and tests?

____12. How frequently are you made aware of the results of your work group's performance as compared to other organizational performance standards (i.e., commander's expectations, etc.)?

PART III

Using the following key place a number in the space provided for each statement:

1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree

____13. My Korean coworkers are sociable toward me.

____14. My American coworkers are sociable toward me.

____15. The imminent threat of hostilities against my work group is very great.

____16. I feel a great deal of mental pressure on my job.

____17. The superiors of my organization exert a great deal of pressure on my work group.

____18. My immediate supervisor is technically qualified for his position.

____19. My immediate supervisor is properly concerned about his people.

____20. My immediate supervisor is properly concerned about the tasks the work group is responsible for.

____21. My immediate supervisor leads by example.

____22. My immediate supervisor uses his/her authority appropriately.

____23. My immediate supervisor would not require me to do anything he/she would not do.

____24. My immediate supervisor makes decisions after getting information from those who do the job.

1-strongly disagree 2-disagree 3-neutral 4-agree 5-strongly agree

____25. I am aware of what my organization expects of me.

____26. I am aware of my organization's plans for my work group.

____27. I am aware of my organization's goals for my work group.

____28. Promotions are fairly made in my organization.

____29. Evaluation systems (OER'S, EER'S, performance appraisals, etc.) are fair in my organization.

____30. Reward systems (medals, certificates, superior performance awards, etc.) are fair in my organization.

____31. Assignments of additional duties (i.e., cleaning work areas, maintenance of vehicles, kitchen helper, etc.) are fairly made in my organization.

PART IV

32. What is your Company designation?_____

33. What is your work group designation?_____

Place an "X" in the appropriate space.

34. Do you speak both English and Hongul (Korean)?

Yes	No
____	____

35. Do you live in barracks or quarters with your coworkers?

Yes	No
____	____

36. How long have you worked in a combined American and Korean environment?

0-6 months	6-12 months	1-2 years	more than 2 years
____	____	____	____

37. In what culture did you grow up?

Korean	White American	Hispanic American	Black American
____	____	____	____

Asiatic American	Native American	Other
____	____	____

38. What is your civilian education level?

less than high school graduate	high school graduate
____	____

some college	college graduate
____	____

39. What is your sex?

male female

____ ____

40. What is your work group location type?

isolated not isolated

____ ____

41. What is your rank?

US officer US E7-E9 US E5-E6 US E1-E4

____ ____ ____ ____

US GS-9 or above US GS-8 or below

____ ____

KATUSA KGS-9 or above KGS-8 or below

____ ____ ____

KWB-7 or above KWB-6 or below Contractor

____ ____ ____

42. What is your time in service (military personnel) or how long have you worked for the US government (civilian personnel)?

less than 3 years 3-6 years more than 6 years

____ ____ ____

43. (U.S. personnel only answer this question) Have you received formal training in the Korean culture?

Yes No

____ ____

44. (KATUSA and Korean personnel only answer this question) Have you received formal training in the American culture?

Yes _____ No _____

45. In what year were you born?

1942 or earlier _____ 1943-1952 _____ 1953-1958 _____

1959-1962 _____ 1963 or later _____

APPENDIX C

RESULTS OF COMPANY COMMANDER SURVEY

Company Designation	Work Group Designation	Size	Cdr. Eval. of Prod.	Cdr. Perception of Cohesion
1	1	14	top 20%	Higher
1	2	30	61-80%	Lower
2	1	21	*	Higher
2	2	84	*	Lower
3	1	15	top 20%	Higher
3	2	41	61-80%	Lower
4	1	16	*	Higher
4	2	21	*	Lower
5	1	8	top 20%	Higher
5	2	34	61-80%	Lower
6	1	33	top 20%	Higher
6	2	95	41-60%	Lower

*Not provided

APPENDIX D

RESULTS OF INDIVIDUAL SURVEY

1 1 2 3 1 2 2 4 3 4 2 3 1 2 2 2 4 3 1 1 4 4 4 5 5 4 5 2 4 4 3 2 1 4
6 2 2 1 1 2 2 1 1 04 1 2 0 4
2 3 3 2 1 2 4 1 2 1 3 1 3 3 2 4 3 3 3 5 3 2 2 2 3 3 3 4 5 5 4 2 3 1
6 2 2 1 1 1 3 1 1 07 1 0 1 4
3 3 4 3 4 2 1 2 3 2 3 2 5 5 5 4 2 2 5 3 5 4 4 5 5 4 2 4 5 5 1 2 2 2
6 2 2 1 2 2 2 1 1 04 1 2 0 0
1 4 1 2 1 1 3 3 3 3 4 3 5 5 5 0 5 1 1 1 5 5 5 4 3 5 3 5 5 5 3 4 4 3
6 2 1 2 4 1 2 1 1 09 3 0 2 1
1 4 2 3 2 2 2 3 3 4 3 4 4 4 4 5 5 1 2 2 5 5 5 5 5 5 5 4 4 4 3 3 4 4
6 2 1 1 3 2 2 1 1 04 2 2 0 4
1 4 3 0 0 0 2 3 0 3 0 1 4 0 0 0 4 2 2 3 4 4 3 3 4 2 4 4 3 4 2 4 3 3
6 2 1 2 4 1 4 1 1 08 3 0 2 1
1 4 3 3 3 3 3 4 3 3 4 4 3 3 3 4 5 3 3 3 3 3 3 3 3 3 3 4 4 4 4 4 4 4
6 2 2 1 1 2 2 1 1 04 1 2 0 0
4 2 3 4 4 3 1 2 1 2 3 3 4 5 3 5 3 3 4 3 2 2 3 3 2 3 2 4 4 3 3 2 2 2
6 2 2 2 3 3 2 1 1 04 2 2 0 4
1 4 1 2 2 2 3 3 5 5 1 1 3 3 5 4 4 4 2 2 4 4 4 2 2 2 4 4 4 4 4 2 2 2
6 2 1 1 3 4 3 1 1 04 2 2 0 4
1 3 1 2 2 1 3 4 3 3 2 2 5 5 2 4 4 2 2 4 4 4 4 4 4 4 4 4 3 2 2 1 3 1 3
6 2 2 2 2 2 3 1 1 02 3 2 0 2
2 4 2 2 1 1 1 1 2 2 3 3 1 1 1 4 4 3 2 4 4 1 4 2 2 2 2 3 1 2 1 4 1 3
6 2 2 2 3 2 2 1 1 03 2 2 0 4
1 2 2 3 2 2 1 1 3 3 2 2 4 4 3 5 5 3 4 4 5 5 5 5 5 5 5 4 4 4 5 4 2 4
6 2 2 2 2 2 4 1 1 01 2 2 0 3
1 5 1 1 2 1 4 4 4 4 4 4 5 5 5 4 4 5 4 5 5 5 5 5 5 5 5 4 4 4 4 4 4 4
6 2 2 1 3 2 2 1 1 04 1 2 0 5
1 2 1 1 1 1 3 3 1 1 1 1 4 4 2 4 4 2 5 5 4 4 4 4 4 4 4 2 3 4 3 3 2 3
6 2 2 1 2 2 3 1 1 02 3 2 0 1
1 5 2 2 3 2 2 4 3 3 3 3 2 3 2 4 4 4 5 4 4 5 4 4 4 5 4 3 2 2 3 3 2 2
6 2 2 2 4 7 3 1 1 03 3 2 0 3
2 3 3 3 2 2 4 3 4 3 3 5 5 4 4 3 2 4 3 2 2 3 2 1 1 3 4 4 4 3 3 2 3
6 2 2 1 3 2 2 1 1 04 1 2 0 4
1 4 2 2 2 1 2 4 3 4 4 4 5 5 5 5 5 4 4 2 4 5 5 3 4 5 4 4 4 4 2 5 2 2
6 2 1 2 4 2 3 1 1 03 2 1 0 4
1 5 2 2 2 3 1 1 2 2 4 4 4 3 2 4 4 1 5 4 5 5 4 3 5 4 2 4 2 2 3 2 1 3
6 2 1 2 3 2 2 1 1 04 2 2 0 4
1 5 3 3 3 1 1 2 3 0 0 0 0 4 2 5 4 3 5 4 5 5 5 5 5 5 5 4 4 5 5 3 2 3
6 2 1 1 1 2 2 1 1 03 2 1 0 4

Note: Each case (questionnaire completed by an individual) was coded on two lines. The first line of each case reflects the responses of questions 1 through 31. The second line reflects questions 32 through 45. Question 1 was recoded within subsequent computer programs as a reverse code with a range of 1 to 5 due to the nature of the question's wording. Likewise questions 3A, 3B, 3C, and 3D were reverse coded by subsequent computer programs due to the nature of their wordings.

APPENDIX E. RESULTS OF FACTOR ANALYSIS

VARIMAX ROTATED FACTOR MATRIX OF ALL RESPONDENTS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9
Q1	0.13150	0.49542	0.24481	0.08242	-0.03747	0.10778	0.11361	0.10829	-0.19963
Q2	0.16434	0.18791	0.11859	-0.02736	-0.08297	0.12713	-0.06091	0.13196	0.03184
Q3A	0.03452	0.81523	-0.00936	0.07869	0.00518	0.31000	-0.09396	0.08178	0.04458
Q3B	-0.02074	0.86638	0.03859	0.18734	0.09485	0.07750	0.08259	0.07215	-0.01403
Q3C	0.16856	0.79669	0.12234	-0.03537	0.09543	0.05836	0.12425	0.09105	0.04983
Q3D	0.05491	0.83335	0.16123	0.09434	0.00547	0.66838	0.11561	0.10278	0.12626
Q4	-0.05987	0.31662	0.19338	0.35751	0.09974	0.39528	0.40873	0.07753	-0.01982
Q5	0.08274	0.16767	0.16482	-0.01786	-0.01094	0.50152	-0.03926	-0.09561	0.44375
Q6	-0.04668	0.12996	0.03987	0.08010	0.15993	0.76692	0.37076	0.06985	-0.08767
Q7	0.14323	0.20811	0.38054	0.10091	0.14846	0.78332	-0.03408	-0.03665	0.23060
Q8	-0.07112	0.04693	0.14564	0.06951	0.21695	0.17533	0.71014	0.26487	0.16692
Q9	0.12646	0.00749	0.09918	0.13395	0.10284	0.20358	0.25252	0.18012	0.66547
Q10	0.06617	0.21696	0.20123	0.70195	-0.01026	0.12649	0.05763	0.01471	0.00419
Q11	0.14675	0.09929	0.12353	0.83509	0.04779	-0.01760	0.11403	-0.03468	0.05641
Q12	0.06896	-0.02322	-0.08745	0.66945	0.22657	0.01020	0.07869	0.02237	0.02290
Q13	0.02351	0.15528	0.32042	0.18599	0.02062	0.02504	0.76186	-0.08058	0.08425
Q14	0.27631	0.49245	0.16981	-0.10637	0.02818	0.07545	0.24981	-0.01699	0.39959
Q15	-0.04478	-0.10932	-0.27150	-0.13118	0.03936	0.26190	0.06183	-0.17045	0.09883
Q16	-0.03373	-0.23579	0.07400	0.16229	-0.02253	-0.09090	-0.04173	-0.69644	-0.03477
Q17	-0.05602	-0.12509	-0.07922	-0.10678	-0.19517	0.11710	-0.03712	-0.66697	-0.05835
Q18	0.86962	0.08955	0.05212	-0.01335	0.00888	0.04589	0.02890	-0.00930	-0.05146
Q19	0.89257	0.08981	0.05246	0.17674	-0.02055	0.04730	0.03286	-0.01803	-0.03067
Q20	0.81436	0.02240	-0.09385	0.07965	0.09002	0.00547	0.10907	-0.06339	0.09655
Q21	0.79107	0.15821	0.16179	0.10839	0.11103	-0.02749	-0.05060	0.09489	-0.10549
Q22	0.76136	-0.04027	0.07042	0.04884	0.06967	-0.03454	-0.05762	0.20429	0.15480
Q23	0.56170	0.12638	0.26542	0.07178	0.15766	0.03008	-0.03414	0.01501	0.18898
Q24	0.67834	0.02192	0.20210	0.30763	0.03198	0.08510	-0.04860	-0.06048	0.03460
Q25	0.03809	-0.01411	0.15899	0.25491	0.45631	0.16389	0.11722	0.46043	-0.06039
Q26	0.14224	0.00239	0.12738	0.10045	0.86185	0.15565	0.09184	0.04857	0.07356
Q27	0.15462	0.10496	0.16290	0.10094	0.83390	0.06811	0.08664	0.18275	0.03704
Q28	0.13860	0.09258	0.59805	-0.04197	0.14655	0.08739	0.06265	-0.12182	0.07323
Q29	0.13656	0.12751	0.76379	0.09432	0.05001	0.08350	0.03205	0.00651	0.07038
Q30	0.15522	0.12746	0.52860	0.38498	0.07099	0.09559	0.12686	0.12731	0.04479
Q31	0.14855	0.13161	0.31543	0.04229	0.28827	0.07180	0.12032	0.32541	0.08448

VARIMAX ROTATED FACTOR MATRIX OF AMERICANS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.15196	0.51288	0.29669	0.09315	0.03580	0.14082	0.02812	0.04567	-0.15318	0.13330
Q2	0.11428	0.26015	0.13762	-0.09699	-0.01907	0.11319	-0.02605	0.17569	0.05593	0.39329
Q3A	0.91175	0.82219	0.00042	-0.00724	0.03522	0.13814	-0.06907	0.09775	-0.06886	0.15462
Q3B	-0.03151	0.85051	0.09961	-0.08526	0.12899	0.13952	0.03666	-0.02694	-0.02695	-0.00553
Q3C	0.11612	0.84277	0.13584	0.03501	-0.03925	0.04644	0.09237	0.13418	0.00278	0.00174
Q3D	0.06308	0.71729	0.15737	-0.04097	0.14320	0.10424	0.04625	0.11342	0.13149	-0.14940
Q4	-0.03405	0.31697	0.16881	0.03785	0.19149	0.52731	0.38441	0.18995	-0.17349	-0.33185
Q5	0.01246	0.19368	-0.06270	0.08284	0.02760	0.55132	0.07012	0.11720	0.19743	-0.07313
Q6	-0.07070	0.15829	0.09822	0.15036	0.11592	0.65033	0.00758	0.01332	0.17535	0.00573
Q7	0.04778	0.22499	0.08464	0.16106	0.10425	0.85867	-0.02547	-0.11816	0.09600	0.20910
Q8	-0.07217	0.04065	0.27426	0.13891	0.10370	0.21589	0.70059	0.19920	0.14146	-0.03216
Q9	0.05229	-0.09472	0.09993	0.09005	0.16692	0.26200	0.32586	0.24820	0.61419	0.08747
Q10	0.02084	0.26466	0.21617	0.04203	0.70567	0.16070	0.03519	-0.05362	0.05208	-0.10784
Q11	0.13374	0.11465	0.14824	0.09019	0.77892	0.02360	0.15656	-0.20946	0.17678	0.01985
Q12	0.06544	-0.10652	-0.08110	0.22912	0.68228	0.03152	0.10500	-0.00387	-0.06759	0.04117
Q13	0.00377	0.05934	-0.01249	0.00418	0.20211	0.08337	0.75903	-0.11388	0.06732	-0.01283
Q14	0.20194	0.55276	-0.01840	0.17739	-0.21285	0.06583	0.40230	-0.03616	0.29752	0.28799
Q15	-0.06563	-0.09692	-0.33013	0.04050	-0.10280	0.28485	0.09571	-0.11779	0.11034	-0.05987
Q16	-0.04481	-0.21930	-0.00934	-0.02762	0.26575	-0.10961	-0.00057	-0.69768	-0.02149	0.04385
Q17	-0.05904	-0.08754	-0.14084	-0.27953	-0.04146	0.09092	0.02467	-0.65091	-0.11509	-0.14425
Q18	0.85783	0.05752	0.04562	-0.00980	-0.02308	-0.02781	0.01547	0.01079	-0.12605	0.05666
Q19	0.87948	0.06773	0.02944	0.00964	0.17340	-0.04379	0.06777	-0.00928	-0.12162	0.33164
Q20	0.80218	-0.04380	-0.16983	0.13264	0.06669	-0.03902	0.13233	-0.04790	-0.04255	0.13302
Q21	0.82243	0.11869	0.24321	0.04076	0.09304	-0.02703	-0.16064	0.07502	-0.04605	-0.14309
Q22	0.77594	-0.00824	0.08561	0.07606	0.00837	-0.03075	-0.02976	0.16793	0.22395	0.01813
Q23	0.67191	0.16490	0.32181	0.21395	0.05417	0.06398	0.02497	-0.05988	0.28737	-0.01312
Q24	0.71179	0.09238	0.20139	0.10079	0.93681	0.12772	-0.68155	0.07700	0.06945	-0.17781
Q25	0.06015	-0.06134	0.26731	0.47891	0.19571	0.22097	0.07914	0.24098	0.02343	0.12177
Q26	0.18439	-0.03449	0.14709	0.84423	0.17641	0.14941	0.08580	0.08173	0.03652	-0.02608
Q27	0.16212	0.03609	0.27664	0.84340	0.08974	0.11102	0.02767	0.08266	0.04336	-0.13610
Q28	0.17621	0.16125	0.68462	0.22064	0.07647	0.02911	0.11079	0.00661	0.03690	0.07082
Q29	0.11872	0.23647	0.77359	0.15292	0.05738	0.10177	0.05105	-0.11213	0.14707	-0.07991
Q30	0.17403	0.07285	0.46530	0.02755	0.46395	0.09154	0.13305	0.12398	-0.05832	0.01503
Q31	0.06692	0.07642	0.52862	0.31671	0.05794	0.02447	0.09600	0.26261	-0.00321	0.06227

VARIMAX ROTATED FACTOR MATRIX OF AMERICANS THAT SPEAK KOREAN

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9
Q1	-0.00699	0.03203	-0.12719	-0.04408	0.08380	0.06748	0.03206	0.00026	0.80756
Q2	0.18090	0.24209	-0.11959	0.39025	0.16912	-0.20903	0.53844	-0.09447	0.18918
Q3A	-0.64694	-0.09935	0.20035	0.01050	0.13013	-0.11367	-0.11933	-0.13192	0.49046
Q3B	-0.80125	-0.28066	0.10682	0.16264	0.06216	0.00340	0.02122	0.30745	0.21455
Q3C	-0.91903	-0.13474	0.04393	0.06012	-0.05784	0.11958	0.10719	0.10281	-0.16120
Q3D	-0.51470	-0.13652	0.39635	0.17414	0.16815	0.46272	0.01222	0.02719	-0.12001
Q4	-0.53756	0.18279	-0.24387	0.15595	0.61981	0.03295	-0.05599	0.07333	-0.09348
Q5	0.11050	0.03710	0.07004	-0.05303	0.61296	0.44789	-0.19110	0.04416	-0.28422
Q6	-0.17998	-0.19850	-0.08375	0.29184	0.83448	-0.23943	0.01620	-0.02648	0.07314
Q7	0.13072	0.09310	0.14652	-0.09062	0.85837	0.13532	-0.04131	0.00530	0.26474
Q8	0.02635	0.04655	-0.14947	0.84916	0.04673	-0.08292	0.20831	0.21147	-0.04621
Q9	0.49270	0.01252	0.34279	0.42062	-0.04733	0.08790	0.34568	0.24242	-0.16447
Q10	-0.33220	0.13356	0.58962	-0.02396	-0.02526	0.18763	0.00991	0.48404	-0.15420
Q11	0.22118	0.14074	0.73821	0.20475	0.19368	0.36310	0.22009	0.27531	-0.07847
Q12	0.10975	0.08717	0.77769	-0.08104	0.07667	-0.01041	-0.32836	0.01326	0.06634
Q13	-0.39147	-0.26379	0.08343	0.79013	0.08071	0.02814	0.03130	-0.00741	0.01266
Q14	0.03592	-0.16309	0.03645	0.83235	0.01770	0.07623	-0.24537	-0.24366	-0.03857
Q15	0.02386	-0.11627	0.21690	-0.07919	0.39266	-0.17755	-0.75966	0.07526	0.01037
Q16	0.04978	-0.04484	0.21323	0.03356	-0.06640	0.16754	-0.00320	0.87883	-0.00043
Q17	-0.39648	0.06418	-0.30223	-0.08452	0.19502	-0.12552	-0.10252	0.65036	0.00788
Q18	-0.12452	0.82572	0.00969	-0.12975	0.01611	-0.04286	0.02478	0.07429	0.35084
Q19	0.24856	0.87579	0.09137	0.05372	-0.10787	-0.05633	0.12136	-0.05070	-0.03350
Q20	0.09675	0.78161	0.15590	-0.00618	0.21279	-0.04487	-0.13502	-0.14812	-0.44519
Q21	-0.13698	0.72507	0.07175	-0.27967	-0.02492	0.40842	0.29259	0.17499	-0.03343
Q22	0.48638	0.64330	0.16234	-0.00295	-0.02557	0.32436	0.38170	0.16629	-0.06683
Q23	0.37477	0.56800	0.11231	-0.00434	-0.04392	0.51394	0.36690	0.09689	0.13533
Q24	-0.01508	0.64638	0.46740	-0.23322	0.06661	0.40505	0.19959	-0.28361	-0.06107
Q25	0.79459	-0.18252	0.37028	-0.02359	-0.07934	0.19440	0.16493	0.08315	-0.00793
Q26	0.60786	-0.06348	0.31998	-0.08335	0.39468	0.34122	0.13393	-0.35509	-0.00541
Q27	0.42145	-0.11688	0.25589	-0.39272	0.20856	0.59193	0.15356	-0.14580	-0.07389
Q28	0.14462	0.16014	0.20511	-0.13314	0.03919	0.25389	0.70217	-0.01151	-0.60723
Q29	0.02283	0.25202	0.07880	0.11804	-0.05093	0.74682	0.22357	0.16904	0.16156
Q30	0.06929	0.26361	0.64462	-0.08183	-0.18147	0.01523	0.18787	-0.28394	-0.17882
Q31	0.55692	0.21109	0.06655	0.34335	0.14346	0.16866	0.22242	0.18055	-0.00705

VARIMAX ROTATED FACTOR MATRIX OF KOREANS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.07590	-0.02422	0.82712	0.20204	0.01409	-0.04399	0.08485	0.00096	-0.01871	0.09979
Q2	0.19688	-0.02512	-0.00908	0.02699	0.07410	-0.00906	-0.07982	-0.09561	0.70005	-0.04959
Q3A	-0.00881	0.36523	0.45013	0.46956	0.03262	0.31261	-0.38097	0.12119	0.15555	-0.11445
Q3B	0.15719	0.41727	0.55641	0.48405	0.05026	0.04888	-0.36387	0.00384	0.06606	0.05099
Q3C	0.27502	0.69126	0.37659	0.19067	0.06125	0.03709	0.00543	0.04062	0.05689	-0.18316
Q3D	-0.09546	0.60099	0.47400	0.12084	0.19037	0.15752	0.18552	0.04203	-0.06724	0.08657
Q4	0.16351	0.39641	0.26424	-0.13408	0.44200	-0.43859	-0.06049	-0.03730	-0.09386	-0.21215
Q5	0.20154	0.18686	-0.01732	0.05125	0.79219	0.21813	-0.11582	0.05215	-0.05275	0.04384
Q6	0.25580	0.25429	-0.07045	-0.22068	0.04846	0.63820	0.12872	-0.23609	-0.10257	-0.09077
Q7	0.56027	0.40260	-0.14063	-0.03096	0.17958	0.41602	-0.15821	0.06442	-0.15229	0.25050
Q8	0.17913	0.62928	0.19033	-0.25837	-0.00800	-0.09279	0.00525	-0.09528	-0.05083	0.40709
Q9	0.18495	0.58596	0.21127	0.16284	0.29187	0.18234	0.15837	-0.03476	-0.17891	0.37753
Q10	0.43627	-0.23892	0.12784	0.62492	0.09687	-0.30966	-0.05164	0.06702	-0.28778	0.08756
Q11	0.28729	-0.11232	0.05764	0.83818	-0.00327	-0.04569	0.18068	0.14552	0.03056	0.02009
Q12	0.17435	0.15062	0.17048	0.67609	-0.17690	0.00264	-0.20189	0.16873	0.22339	0.06249
Q13	0.21682	0.33580	0.72670	-0.10117	0.04964	-0.19621	-0.05199	0.18559	-0.05472	-0.11462
Q14	0.42483	0.17133	0.53945	0.12781	0.35237	-0.06502	-0.17495	0.23106	0.10962	0.23055
Q15	0.00009	-0.00119	-0.08815	-0.21273	-0.06692	0.09958	-0.00841	-0.69019	0.11194	-0.01573
Q16	-0.33011	-0.06856	-0.21255	-0.41604	0.27906	0.04664	0.11238	-0.22289	-0.05727	-0.47894
Q17	-0.30615	0.03383	-0.36422	-0.32427	0.05932	-0.34362	0.14687	-0.38510	-0.14277	-0.12335
Q18	0.83079	0.29360	0.08716	0.11008	0.17076	-0.00668	0.19503	-0.02300	0.19418	-0.12844
Q19	0.87682	0.12074	0.22411	0.28268	0.00849	0.07978	0.19423	-0.05381	0.15525	-0.06673
Q20	0.77667	0.21880	0.37795	0.16017	0.02932	0.19505	0.23087	0.04922	0.11391	0.02541
Q21	0.80293	0.26519	0.26190	0.05859	0.09505	0.12159	-0.04129	0.11356	-0.01298	0.04215
Q22	0.70911	-0.04497	-0.17296	0.22506	0.06564	-0.06936	0.03116	0.02701	0.29154	0.31643
Q23	0.47498	0.04106	0.07012	0.15118	-0.11703	-0.04663	0.11246	0.08861	0.53876	0.16800
Q24	0.28055	-0.05953	0.01363	-0.01213	-0.03787	0.08293	0.72186	0.04705	-0.00182	-0.00505
Q25	0.56417	0.22682	0.04874	0.27876	0.18290	0.07997	-0.43273	0.10283	0.21776	0.22365
Q26	0.11311	0.65218	-0.08288	-0.12523	0.08791	0.00899	-0.23418	-0.21712	0.15638	-0.08654
Q27	0.27994	0.77577	0.03171	0.04386	-0.09214	0.12654	-0.13775	0.16691	-0.00704	0.04313
Q28	-0.12476	-0.04962	0.06716	-0.24921	0.67417	-0.18692	-0.04500	-0.15729	-0.02043	-0.06264
Q29	0.16908	-0.13887	-0.01983	-0.03352	0.63096	-0.05999	0.15830	0.54144	0.06625	-0.09993
Q30	0.18729	0.20934	0.24942	0.19119	0.64624	0.11673	0.02232	0.36097	0.23928	0.03143
Q31	0.39243	0.28835	0.16783	0.04651	0.26916	0.34028	0.07633	-0.14040	0.24386	0.31548

VARIMAX ROTATED FACTOR MATRIX OF RESPONDENTS 21 YEARS OLD OR YOUNGER

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.32581	0.46902	0.15240	0.13037	0.01036	0.04168	0.29437	0.14054	0.03205	0.13108
Q2	0.36372	0.37193	0.03268	0.36843	0.01807	0.17782	0.01181	-0.12973	0.07095	-0.09271
Q3A	0.22750	0.77450	0.08047	0.08022	0.21959	0.32212	0.02612	-0.02430	-0.20701	0.05828
Q3B	0.14479	0.77700	0.09168	0.10692	0.23267	0.16286	-0.01064	-0.05301	0.15249	0.11429
Q3C	0.31426	0.75069	0.12962	0.07908	0.01308	-0.07459	0.19303	0.03709	0.12219	-0.10251
Q3D	-0.01147	0.63268	-0.08430	0.18080	0.09212	-0.03709	0.27647	0.37328	0.42928	0.22137
Q4	0.09513	0.14510	0.34713	0.45076	0.01112	0.29011	-0.12939	0.35914	0.34972	-0.12387
Q5	0.16120	0.06847	0.12915	0.02715	0.16272	0.75830	0.19211	-0.07848	0.14774	0.11290
Q6	0.00574	0.13065	0.28894	0.47079	-0.03704	0.48031	0.09084	0.49386	-0.08951	0.01997
Q7	0.19269	0.23387	0.19538	0.23138	0.14389	0.75366	0.09067	0.12379	-0.05869	0.09931
Q8	-0.05896	0.02680	0.16526	0.85996	0.02640	0.15703	0.01762	-0.01551	0.24738	-0.07435
Q9	0.16056	0.10350	0.32281	0.50339	0.28699	0.29254	0.42089	-0.27027	-0.01340	-0.00195
Q10	0.20364	0.26851	0.17245	0.11679	0.76514	0.10862	-0.11893	-0.00930	0.27864	-0.20993
Q11	0.07129	0.08128	0.29227	0.31158	0.73022	0.21184	0.12489	0.03929	0.18993	-0.01405
Q12	0.17248	0.12262	0.12739	-0.00530	0.60197	0.09572	0.08926	0.11678	-0.30230	0.36674
Q13	-0.06929	0.21129	0.11969	0.78627	0.13531	-0.02884	-0.02040	0.04355	0.00934	0.00109
Q14	0.31154	0.51460	0.08107	0.31324	-0.02628	0.41210	0.25667	-0.27949	-0.12904	0.23003
Q15	-0.12246	0.15784	0.07797	-0.10467	-0.01549	0.18338	-0.20131	-0.04158	-0.02828	0.65712
Q16	0.07252	-0.18020	-0.26440	0.09055	0.16796	-0.15253	-0.58280	-0.16892	-0.12068	0.16411
Q17	-0.13335	-0.10592	-0.25105	0.00625	-0.26079	-0.08027	-0.66754	-0.04378	0.26485	0.18251
Q18	0.82301	0.38919	-0.08059	-0.07855	0.04626	0.00263	-0.08013	0.09942	-0.01735	-0.08537
Q19	0.90116	0.20979	0.08135	-0.00114	0.21493	0.14386	0.00897	0.05894	-0.18474	0.03524
Q20	0.81692	0.18470	-0.13115	0.06682	0.14670	0.09804	0.18867	0.11034	-0.06567	0.17086
Q21	0.76297	0.10921	-0.02440	-0.16437	0.17178	0.00455	-0.00268	0.17019	0.23034	-0.17076
Q22	0.84246	-0.00848	0.10957	0.03777	-0.06918	0.23608	0.12644	-0.03175	0.09139	-0.17435
Q23	0.61092	0.21135	0.39075	0.25064	0.10693	-0.02154	0.24161	-0.08845	0.21584	0.13053
Q24	0.44890	-0.01991	0.04574	-0.04750	0.19584	-0.01802	0.10147	0.69843	0.07951	-0.06995
Q25	-0.02865	0.05520	0.57084	0.20138	0.25396	0.21142	0.13872	-0.32041	0.03902	-0.03068
Q26	0.04607	-0.00215	0.84012	0.24227	0.14699	0.18489	0.14714	-0.00268	-0.08714	0.16327
Q27	-0.09548	0.06922	0.84378	0.10545	0.09807	0.05602	0.27783	0.10954	0.06414	0.13822
Q28	0.16967	0.24368	0.67346	0.00951	0.18881	0.07907	-0.01218	0.19301	0.17156	-0.36000
Q29	0.07399	0.08794	0.08654	0.16270	0.14259	0.03949	0.02065	0.03097	0.60849	-0.05343
Q30	0.27665	0.12830	0.37739	-0.09720	0.44540	-0.00998	0.17298	0.15960	0.20690	-0.03397
Q31	0.34928	0.15651	0.18973	0.11074	0.04468	0.18597	0.55728	-0.07726	0.19735	0.02573

VARIMAX ROTATED FACTOR MATRIX OF RESPONDENTS 40 YEARS OLD OR OLDER

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
Q1	-0.33002	0.19420	-0.09954	0.26506	0.78346	0.23903	0.11564	0.06833
Q2	0.17712	-0.14100	0.14977	0.40297	-0.09559	0.60530	-0.34775	0.24678
Q3A	-0.04284	0.96720	-0.05964	-0.00258	-0.00089	-0.04794	-0.00969	-0.07796
Q3B	-0.11490	0.91032	0.01582	-0.02121	0.19542	0.08525	0.04167	-0.06336
Q3C	0.17914	0.50181	-0.28738	0.53177	0.31918	0.06995	0.27048	0.27623
Q3D	-0.21857	0.63432	-0.29599	0.20498	0.20549	0.02996	0.43221	0.28923
Q4	-0.11525	0.18033	-0.34924	0.24030	0.40048	0.29294	0.71922	-0.09247
Q5	0.24528	0.04668	-0.25527	-0.12639	-0.11509	0.59782	0.59257	0.08193
Q6	0.03991	-0.14181	0.12464	0.92241	-0.03216	-0.01144	0.06179	0.08187
Q7	0.11034	0.21361	0.43393	0.85364	0.07263	-0.00763	-0.00186	-0.03673
Q8	-0.42936	0.25058	0.51164	0.56463	0.11828	0.25915	0.06292	0.22936
Q9	0.07361	0.10496	0.50564	-0.19352	0.02073	0.02363	0.79518	0.00891
Q10	-0.02711	0.05453	0.06887	0.01235	0.96647	0.07837	0.11532	-0.08319
Q11	0.17298	0.15165	0.16803	0.07753	0.92736	0.00501	-0.05247	0.02303
Q12	-0.13918	0.29313	0.49507	0.21313	0.60349	0.18284	-0.19212	-0.28020
Q13	-0.01306	0.70442	0.07055	0.39096	0.17492	0.25298	0.29001	-0.04553
Q14	0.19315	0.49876	0.05523	-0.03404	0.18363	0.77516	-0.05224	-0.14627
Q15	0.01741	-0.34015	-0.20560	0.20573	-0.44918	-0.41965	-0.14287	0.49159
Q16	0.11491	0.17120	-0.92783	0.01681	-0.13915	0.04568	0.20989	0.04174
Q17	-0.05394	-0.02418	-0.91992	-0.04148	-0.10415	-0.17777	-0.17888	-0.13804
Q18	0.94694	-0.13332	-0.09372	0.03551	-0.10286	0.10286	0.17635	-0.01988
Q19	0.96096	0.00233	0.01645	0.01295	0.02098	0.01446	-0.07583	0.08093
Q20	0.87605	0.02419	0.05343	-0.00762	-0.08337	0.21115	-0.00120	0.07380
Q21	0.78541	0.45613	0.14114	0.11212	-0.01641	-0.03352	0.25297	-0.09169
Q22	0.53885	-0.09181	0.20231	-0.10585	0.14864	0.29922	-0.48743	0.30743
Q23	0.56957	-0.14067	0.04954	-0.32292	-0.21776	0.14071	-0.20484	-0.01658
Q24	0.91020	-0.23751	-0.20642	-0.00713	0.22013	0.08034	0.00060	0.10684
Q25	-0.00502	-0.12585	0.87077	0.41739	0.03140	0.09387	0.01319	-0.01451
Q26	-0.19593	0.20704	-0.12375	0.80124	0.18969	-0.00907	-0.14885	0.13532
Q27	-0.06087	0.66804	0.06590	0.62646	0.22303	0.13096	-0.09998	-0.00596
Q28	-0.24266	-0.25596	-0.57963	0.00366	0.09127	0.54479	0.08406	0.08638
Q29	0.22514	0.11539	0.05759	0.11886	0.49769	0.76369	0.10737	0.12720
Q30	0.30478	0.08284	0.26836	-0.03102	0.12923	0.73405	0.27880	0.25131
Q31	0.19060	-0.04193	0.10227	0.21517	-0.10278	0.32104	-0.01074	0.84310

VARIMAX ROTATED FACTOR MATRIX OF SUPERVISORS (US OFFICERS, US E5 OR ABOVE, US GS-9 OR ABOVE, KGS-9 OR ABOVE, KPB-7 OR ABOVE)

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.01105	0.26177	0.27083	-0.03727	0.27612	0.15170	0.08546	-0.29627	0.02276	0.61492
Q2	0.08579	0.04539	0.09493	-0.24566	-0.18807	0.20712	0.06902	-0.02250	-0.04386	-0.47407
Q3A	-0.03436	0.80086	-0.00990	-0.14035	0.03352	0.05563	0.04122	-0.10385	-0.00759	0.07382
Q3B	-0.12335	0.88611	0.05747	-0.04759	0.09821	0.16821	-0.06649	-0.08269	0.07251	0.15487
Q3C	0.07801	0.74605	0.04625	0.13707	-0.03028	0.09514	0.03820	0.11497	0.15163	0.02110
Q3D	-0.04444	0.72659	0.20942	0.02077	0.09483	0.01468	-0.11619	0.23429	0.00250	-0.02477
Q4	-0.00677	0.33512	0.12110	0.18002	-0.05991	0.27490	-0.09281	0.20810	0.36993	0.50745
Q5	0.14635	0.16570	0.13872	-0.03655	0.07004	0.32857	0.29416	0.64332	0.14774	0.00527
Q6	0.02975	0.25365	0.06126	0.19264	-0.11660	0.82204	-0.02432	-0.06908	0.23392	-0.01051
Q7	0.22083	0.22977	0.11709	0.22483	0.08329	0.79150	0.14796	0.18314	-0.02784	-0.00369
Q8	-0.02366	0.17410	0.23697	0.16532	-0.15214	0.27025	-0.57741	0.12957	0.39870	0.12659
Q9	0.11356	0.08150	0.17310	0.17654	0.08607	-0.01752	-0.25207	0.71327	0.20150	-0.05195
Q10	0.03978	0.17788	0.13160	0.07961	0.80621	0.06639	-0.02727	0.20857	-0.09066	0.28076
Q11	0.32823	0.13031	0.00989	-0.02028	0.86543	-0.06420	0.08052	-0.00661	-0.00904	0.02774
Q12	0.12329	-0.10437	0.02870	0.22784	0.70554	-0.09740	-0.03235	-0.04328	0.11805	0.03762
Q13	-0.01716	0.17174	0.03833	-0.05942	0.05863	0.11134	-0.02583	0.17842	0.66083	0.13216
Q14	0.28538	0.48846	0.10981	-0.07381	-0.01130	0.17499	0.05578	0.31317	0.40257	-0.25374
Q15	-0.20745	-0.09989	-0.23096	-0.10001	-0.23486	0.40991	-0.03716	0.27593	0.02432	0.01385
Q16	0.03228	-0.05799	0.24738	-0.00457	0.11724	0.04201	0.73479	-0.04725	0.01916	-0.00642
Q17	0.15892	0.05234	-0.06366	-0.21690	-0.17161	0.11914	0.64498	0.04879	0.06698	0.05385
Q18	0.76595	-0.05363	0.11698	0.09023	-0.06713	0.05359	0.07478	0.05466	0.27770	0.06962
Q19	0.78115	-0.02656	0.04631	0.04226	0.28526	0.03692	0.19635	-0.08568	0.31497	-0.17831
Q20	0.64835	-0.09872	-0.12206	0.25771	0.14146	-0.04425	0.25523	0.00923	0.48254	-0.20249
Q21	0.77905	0.15922	0.20549	0.27080	0.14688	-0.00660	0.07138	-0.16971	-0.09427	0.11338
Q22	0.75653	-0.11116	0.09376	0.07341	0.04649	-0.05582	-0.21658	0.19908	-0.20648	-0.09444
Q23	0.66087	0.07661	0.39713	0.07652	0.17610	0.14203	0.09113	0.03681	-0.11665	-0.13732
Q24	0.74587	-0.03972	0.22878	0.11248	0.16530	0.08533	0.04081	0.23220	-0.15098	0.11851
Q25	0.06214	-0.11204	0.17250	0.74395	0.22240	0.11514	-0.30105	-0.02941	0.04691	0.00580
Q26	0.22195	-0.06303	0.13284	0.75990	0.07892	0.18435	0.02336	0.10017	0.07370	0.13569
Q27	0.28240	0.11541	0.09726	0.86295	0.04351	0.04464	-0.09123	0.07305	-0.11084	0.07109
Q28	0.15764	0.03410	0.79681	0.04066	-0.03542	0.05590	0.15619	0.15660	-0.01041	0.05575
Q29	0.27963	0.19832	0.77022	0.05044	0.05136	0.07076	0.00455	0.14897	0.01873	-0.00385
Q30	0.11810	0.12693	0.57753	0.12253	0.37699	-0.12245	0.00205	0.00474	0.22442	-0.36769
Q31	0.14035	0.01033	0.69253	0.43694	-0.00600	0.04908	-0.12587	-0.08810	-0.00018	0.45172

VARIMAX ROTATED FACTOR MATRIX OF NON-SUPERVISORS (US E1-14, US GS-8 OR BELOW, KATUSA, KGS-8 OR BELOW, KWB-6 OR BELOW)

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.15710	0.48152	0.38901	-0.03898	0.28696	0.05571	0.06125	0.23786	0.06214	0.48296
Q2	0.28000	0.42123	0.10987	0.13793	0.18007	0.03427	-0.02390	0.03930	-0.08391	0.43526
Q3A	0.13851	0.73251	-0.10702	0.13217	0.13283	0.28409	0.09159	-0.01485	-0.20140	0.19622
Q3B	0.08475	0.82184	0.02009	0.28976	0.10088	0.06686	0.02397	0.01390	-0.08577	0.09189
Q3C	0.21375	0.80754	0.08097	-0.05042	0.21515	0.06625	0.10898	0.18645	-0.03936	-0.00426
Q3D	0.12799	0.67372	0.07241	0.09020	0.16188	0.08885	0.06822	0.13564	0.28432	-0.07543
Q4	-0.10415	0.37873	0.37973	0.10955	0.06866	0.24392	0.05702	0.24515	0.38969	0.04231
Q5	0.00907	0.18016	-0.01001	-0.06372	0.20970	0.79474	-0.03582	0.07341	-0.08482	-0.10448
Q6	-0.12435	0.01259	0.42494	0.22616	0.08445	0.49080	0.15202	0.01902	0.41889	0.20337
Q7	0.09190	0.19477	0.11134	0.13346	-0.03253	0.76835	0.11140	0.05289	0.08632	0.13402
Q8	-0.06415	0.01531	0.93097	0.17654	0.11946	-0.00104	0.24548	0.06124	0.06424	0.09788
Q9	0.17905	0.02040	0.57653	0.11400	0.08416	0.42218	0.03307	-0.03189	-0.15901	0.02274
Q10	0.06553	0.20871	0.07911	0.70980	-0.01648	0.05326	-0.05431	0.26853	0.04439	0.13790
Q11	0.04573	0.04244	0.31830	0.73202	0.00112	-0.02146	0.09173	0.21282	0.00694	0.01807
Q12	0.04445	0.05323	0.16605	0.63112	0.00104	0.09199	0.18019	-0.21511	0.00098	-0.05110
Q13	-0.00132	0.06076	0.58419	0.28309	0.04818	-0.02483	0.10547	0.06748	-0.00223	-0.02352
Q14	0.27712	0.41262	0.19564	-0.10456	0.17819	0.29284	0.14974	0.22079	-0.51493	0.12536
Q15	0.05242	-0.26734	-0.07931	0.00273	-0.23351	0.26431	0.14530	-0.21314	-0.01817	0.08724
Q16	-0.11215	-0.35662	0.06982	0.17219	-0.66420	-0.04936	-0.12217	-0.04950	-0.21110	-0.10801
Q17	-0.23703	-0.24328	-0.09894	-0.04785	-0.71434	-0.03309	-0.16626	-0.06337	0.07525	0.00436
Q18	0.92262	0.12967	-0.11178	0.07441	-0.03787	0.00092	-0.00676	-0.00388	-0.04022	0.09432
Q19	0.91632	0.10699	-0.03143	0.10757	0.06393	0.08803	-0.03572	0.02785	-0.12133	0.21642
Q20	0.89520	0.03455	0.02587	0.02680	0.07382	0.14127	0.00586	-0.05762	-0.12439	-0.05966
Q21	0.79820	0.16733	-0.03629	0.08232	0.14839	-0.08122	0.00202	0.09593	0.10607	-0.07282
Q22	0.83923	0.06779	0.10079	0.02609	0.11659	-0.01314	0.04123	-0.01141	-0.03554	0.07900
Q23	0.69643	0.13986	0.12471	0.00342	0.09617	0.04936	0.22068	0.08698	-0.07711	-0.00148
Q24	0.65735	-0.01794	-0.06226	-0.13871	0.01273	0.03175	0.03047	0.23654	0.39840	-0.02589
Q25	0.00028	0.08209	0.13915	0.33110	0.51250	0.06753	0.27487	0.01432	0.02495	0.36009
Q26	0.09505	0.07307	0.17231	0.12488	0.10961	0.11328	0.88465	0.09254	-0.03358	0.01513
Q27	0.05423	0.12138	0.20851	0.10684	0.26672	0.01803	0.81546	0.17743	0.05256	0.02225
Q28	0.10850	0.12489	0.08937	-0.01453	-0.04885	0.07508	0.28116	0.60800	-0.06433	0.19723
Q29	0.03317	0.13893	0.00411	0.19395	0.20266	0.01374	0.04761	0.75670	0.05537	-0.03098
Q30	0.18051	0.17286	0.17467	0.40544	0.29444	0.07920	0.04478	0.41611	0.07960	-0.05496
Q31	0.15762	0.17824	0.25125	0.03549	0.57027	0.23199	0.09357	0.24890	-0.20267	0.06455

VARIMAX ROTATED FACTOR MATRIX OF NON-CAREER PERSONNEL (TIME IN SERVICE/WORKED FOR US GOVT LESS THAN 3 YEARS)

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9
Q1	0.16796	0.10696	0.55214	0.14881	0.15716	-0.02196	0.39645	-0.01667	-0.00622
Q2	0.44625	0.22784	0.03461	0.20643	0.07429	0.13381	0.37509	-0.26587	0.24478
Q3A	0.33754	0.14408	0.54982	0.04866	0.39942	0.26052	0.18208	0.06494	0.23529
Q3B	0.26202	0.08609	0.48739	0.24073	0.26163	0.55556	0.12306	0.17372	0.17617
Q3C	0.32898	0.12438	0.64083	0.08325	0.16478	0.21322	0.12267	-0.05992	0.33527
Q3D	0.18986	0.27122	0.60785	0.05966	-0.09881	0.37509	0.04911	-0.04314	-0.08981
Q4	0.07357	0.75282	0.22604	0.04521	0.04912	0.11442	0.20451	0.14496	0.12779
Q5	0.05176	0.18663	0.01065	-0.03075	0.92407	0.15360	0.04961	-0.00541	0.06078
Q6	-0.05312	0.76299	0.02185	0.03291	0.25424	0.15123	0.03425	0.05581	-0.15976
Q7	0.27986	0.54919	0.21860	0.05307	0.54732	0.03916	0.02133	0.05640	-0.09152
Q8	-0.15581	0.85624	-0.00302	0.24123	0.11524	0.17160	0.17361	-0.00625	-0.00960
Q9	0.15208	0.54388	0.18875	0.14567	0.64449	0.11336	0.05424	-0.07393	0.01002
Q10	0.25633	0.28101	0.10646	0.04609	0.01218	0.67294	0.27600	-0.09255	0.02233
Q11	0.00731	0.45436	0.16808	0.12716	0.07078	0.76780	0.25616	-0.16717	-0.18825
Q12	0.11169	0.10437	-0.15728	0.04761	0.17388	0.69186	-0.14659	0.00086	0.09201
Q13	-0.16691	0.73609	0.05480	-0.00868	0.01949	0.29132	-0.01041	-0.03684	0.42785
Q14	0.19254	0.18675	0.43651	0.07311	0.58696	-0.01653	0.17453	0.05234	0.55858
Q15	0.03050	0.09324	0.03419	0.04916	0.10368	-0.00277	-0.10106	0.64250	-0.01283
Q16	-0.12761	0.03298	-0.83388	-0.07110	-0.08480	0.19307	-0.16051	0.15639	0.10996
Q17	-0.15315	-0.03570	-0.39531	-0.19084	-0.35820	-0.13841	-0.02565	0.75127	0.03205
Q18	0.95145	-0.11936	0.09762	-0.03415	-0.06173	0.14865	0.06884	0.01550	0.10458
Q19	0.91371	-0.02642	0.09231	-0.07112	0.15966	0.13668	0.14397	-0.06309	0.19011
Q20	0.38544	-0.00181	0.07625	-0.11174	0.19754	0.10571	-0.01011	0.02165	0.05398
Q21	0.87048	-0.14719	0.18213	-0.01868	-0.01703	0.12939	0.04094	-0.01338	-0.13805
Q22	0.83180	0.05083	0.15908	0.03456	0.12195	-0.01283	-0.06090	-0.03386	-0.14153
Q23	0.56124	0.23558	0.38094	0.41334	0.07659	-0.03297	0.18100	-0.00988	0.08906
Q24	0.51031	0.15373	0.25889	-0.34127	-0.14466	-0.13882	0.24630	0.09579	-0.37164
Q25	-0.15310	-0.07002	0.18143	0.64643	0.19821	0.34687	0.33360	-0.06652	0.11681
Q26	0.02929	0.22814	0.10475	0.92827	0.01039	0.05410	0.03285	-0.01273	0.05934
Q27	-0.09827	0.08581	0.08293	0.93696	-0.01249	0.01062	0.12858	-0.00280	-0.06947
Q28	0.07813	0.22153	0.53592	0.24594	0.04455	0.01851	0.65444	-0.06779	0.39398
Q29	0.04130	0.12075	0.16595	0.11325	0.06447	0.06180	0.86255	-0.10250	-0.07696
Q30	0.15407	0.23956	0.17308	0.02904	0.01556	0.47951	0.56522	-0.00831	0.14427
Q31	0.10547	-0.09428	0.21780	0.31223	0.44117	0.13653	0.43987	-0.35056	0.05148

VARIMAX ROTATED FACTOR MATRIX OF CAREER PERSONNEL (TIME IN SERVICE/ WORKED FOR US GOVT GREATER THAN 6 YEARS)

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9
Q1	-0.00576	0.49721	0.03177	-0.01767	0.22027	0.22136	-0.12348	-0.25053	0.16421
Q2	0.00162	0.02565	-0.07675	-0.01118	0.39759	-0.05132	-0.00639	-0.00896	-0.70708
Q3A	-0.13068	0.79923	-0.03163	0.00980	-0.09538	0.00139	-0.02678	-0.13082	-0.05557
Q3B	-0.02530	0.91585	0.01940	0.17123	-0.04980	0.03955	-0.00715	-0.06095	-0.05102
Q3C	0.04301	0.78994	0.19411	0.00120	0.08274	0.01860	0.07658	0.04188	0.04649
Q3D	0.03483	0.78934	0.08869	0.15439	0.16157	-0.06017	0.01059	0.14776	-0.05899
Q4	-0.06717	0.43200	0.32971	-0.00683	0.29020	0.06023	0.07810	0.19211	0.42081
Q5	0.11181	0.31085	0.19207	-0.40578	0.25903	-0.08482	0.13567	0.51986	0.24127
Q6	0.15662	0.08941	0.74832	-0.06607	0.01784	-0.04850	0.00422	0.32043	0.00621
Q7	0.22740	0.01739	0.74924	-0.16507	0.10963	0.05909	-0.13690	0.31444	0.00141
Q8	-0.04210	0.15213	0.38184	0.59131	0.26283	-0.03529	0.20075	0.28642	0.10283
Q9	0.14412	0.09563	0.26221	0.25161	0.23723	-0.06569	0.23486	0.44402	0.23285
Q10	-0.01047	0.09217	-0.02108	-0.01439	0.16911	0.89684	-0.12428	0.11390	0.28089
Q11	0.21162	0.05858	-0.04717	-0.06599	-0.07419	0.83889	0.13717	-0.17454	-0.13513
Q12	-0.02559	-0.02210	0.18284	0.16910	-0.15349	0.60577	0.32448	-0.16941	-0.02205
Q13	0.12058	0.38947	0.14894	0.08580	0.12970	0.15364	0.45930	0.17985	0.18582
Q14	0.20578	0.61285	0.02350	0.04325	0.28067	0.02490	0.23344	0.14383	0.06195
Q15	-0.10904	-0.20540	0.13155	-0.18389	-0.20534	-0.22678	-0.18340	0.52139	-0.10330
Q16	-0.04854	-0.18365	0.04902	-0.81870	0.13637	-0.03507	0.16340	0.04399	-0.02687
Q17	0.10130	-0.12526	0.02167	-0.73310	-0.08745	0.00858	-0.07673	0.12520	0.06253
Q18	0.87021	-0.04141	0.18933	-0.13952	0.13463	-0.00271	0.14497	-0.02412	0.21225
Q19	0.82907	-0.04959	-0.04710	-0.13174	-0.01386	0.16197	0.45569	-0.07118	-0.12857
Q20	0.60729	-0.04493	0.13302	-0.16201	-0.14349	0.10427	0.64916	-0.04226	0.05233
Q21	0.73825	0.07423	0.21218	0.06104	0.04462	0.02947	0.14138	-0.16580	0.02718
Q22	0.70690	-0.00764	-0.03489	0.26707	0.07985	0.14286	-0.13126	0.03799	-0.25571
Q23	0.78047	0.04373	0.01292	0.05463	0.08212	-0.08534	-0.01206	0.06249	-0.04145
Q24	0.73738	0.01253	0.07938	-0.07005	0.12104	0.05113	-0.05970	0.18176	0.08681
Q25	0.18543	-0.23172	0.52276	0.57908	0.07601	0.10016	0.25487	-0.01153	0.11959
Q26	-0.02119	0.06365	0.77527	0.05215	0.19230	0.01481	0.13704	-0.09106	0.08691
Q27	0.09950	0.29243	0.76125	0.27606	0.09523	0.03832	0.10287	-0.15218	0.10933
Q28	-0.02746	0.07031	0.05098	-0.17984	0.81707	-0.12906	-0.01303	0.16644	-0.01335
Q29	0.24111	0.11385	0.18785	0.06161	0.79035	0.14588	-0.03622	-0.08053	-0.02646
Q30	0.14237	0.13312	0.06459	0.18663	0.51267	0.18250	0.53884	-0.05049	-0.11630
Q31	0.19612	0.16587	0.25690	0.28971	0.58283	-0.11665	0.11721	-0.07635	-0.02873

VARIMAX ROTATED FACTOR MATRIX OF PERSONNEL ASSIGNED TO WORK GROUPS
AT NON-ISOLATED LOCATIONS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	-0.06949	0.56835	0.11453	0.22365	0.18737	0.14628	-0.23858	0.04965	-0.23355	-0.05448
Q2	0.13278	0.31067	-0.05834	-0.01108	0.08873	-0.14365	-0.10352	-0.01811	0.12030	0.70543
Q3A	-0.06462	0.89484	-0.01701	0.01452	0.13301	0.06128	-0.06935	-0.00115	0.01466	0.02647
Q3B	-0.15876	0.87371	0.03078	0.08687	0.15815	0.11185	-0.06741	0.03751	0.05706	0.06072
Q3C	0.16855	0.84632	0.10462	0.12470	0.13727	-0.08184	0.10356	0.11944	-0.04302	0.15808
Q3D	-0.00719	0.73427	0.01503	0.22642	0.08437	0.09056	-0.15073	-0.02333	0.18051	0.09404
Q4	-0.32563	0.36553	0.11686	0.12094	0.56200	-0.05474	-0.10656	0.16377	0.02862	-0.04618
Q5	0.06872	0.26392	0.04388	0.08621	-0.23172	-0.12618	0.20334	-0.01697	0.51443	0.11405
Q6	-0.11523	0.13289	0.18676	-0.02224	0.83543	0.01399	0.11107	0.21523	0.09478	0.07143
Q7	0.05139	0.41429	0.11689	0.02129	0.69401	0.15435	0.27455	-0.02514	0.30738	0.05671
Q8	-0.00898	0.09850	0.32660	0.21118	0.50601	-0.02267	-0.28707	0.54500	0.07261	-0.03365
Q9	0.09861	-0.02877	0.17406	0.11319	0.11968	0.21747	-0.21850	0.19741	0.65138	0.00957
Q10	-0.00568	0.27463	-0.05645	0.25841	0.22332	0.59124	0.03257	-0.11982	0.12238	-0.21910
Q11	0.09951	0.15748	-0.00729	0.18413	0.06827	0.84494	0.05342	0.11978	0.05727	0.03171
Q12	-0.01185	-0.13582	0.17829	-0.15737	-0.11830	0.70236	0.08065	0.03409	-0.03983	-0.04038
Q13	0.02324	0.08291	0.02901	0.01051	0.26300	0.10898	0.00971	0.77468	0.06495	-0.04653
Q14	0.17917	0.60603	0.01811	0.13885	-0.11452	-0.14863	0.17489	0.53290	0.23344	0.14527
Q15	0.00585	-0.06282	-0.03086	-0.31628	0.10979	-0.21720	0.27304	0.09426	0.30783	-0.32529
Q16	-0.01219	-0.25712	-0.06962	0.09718	-0.06068	0.19924	0.70541	-0.00129	-0.02800	-0.06503
Q17	-0.04052	-0.14405	-0.25642	-0.10384	0.20050	-0.00449	0.77945	-0.01645	0.01169	-0.07339
Q18	0.92042	-0.06582	-0.05582	0.00815	-0.00595	-0.10946	0.00752	0.06981	0.08810	-0.05114
Q19	0.90756	-0.02765	-0.08867	0.03053	-0.07265	0.04137	0.15294	0.13133	-0.13238	0.16291
Q20	0.85433	-0.07435	0.12163	-0.16495	-0.13158	0.96379	0.17792	0.18281	-0.09498	0.15576
Q21	0.86658	0.12363	0.09299	0.15362	0.02645	0.14536	-0.10313	-0.10254	-0.15632	0.01378
Q22	0.74064	-0.07961	0.09804	0.11937	-0.08592	0.01409	-0.15754	-0.02298	0.29093	0.10185
Q23	0.63147	0.15212	0.24862	0.32226	0.01715	0.02732	-0.02045	0.01116	0.17763	-0.06653
Q24	0.78426	-0.05322	0.00752	0.20860	0.12628	0.01846	-0.10061	-0.16731	0.14314	-0.17854
Q25	-0.06691	0.00047	0.59841	0.09408	0.23069	0.15124	-0.32666	-0.00936	0.04261	-0.04756
Q26	0.17119	0.05792	0.90507	0.05425	0.10431	0.05411	0.00461	0.12323	0.09026	0.02476
Q27	0.10173	0.05803	0.91972	0.18185	0.08770	0.01502	-0.07579	0.00425	0.05630	-0.06451
Q28	0.23284	0.19838	0.07158	0.82408	0.03164	-0.00605	0.03915	0.07964	0.10891	-0.07009
Q29	0.09143	0.19886	0.22152	0.85266	0.12197	0.07168	0.04238	0.07918	0.15317	0.00898
Q30	0.21272	0.12478	0.06355	0.51935	-0.03056	0.40242	-0.03667	-0.03502	-0.13330	0.05626
Q31	0.02135	0.09522	0.47774	0.50023	0.04382	-0.02410	-0.17821	0.00515	-0.02742	0.09069

VARIMAX ROTATED FACTOR MATRIX OF PERSONNEL ASSIGNED TO WORK GROUPS AT ISOLATED LOCATIONS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
Q1	0.40894	0.45491	-0.05896	-0.05975	0.22683	-0.09454	-0.03975	0.11816	0.37692	0.11063
Q2	0.21657	-0.00641	0.04362	0.00813	0.17645	-0.06831	0.03173	0.02218	0.10019	0.83269
Q3A	0.12495	0.74758	0.07692	0.23376	-0.06337	0.00972	-0.19415	0.12669	-0.07825	0.28501
Q3B	0.21496	0.83596	0.25220	-0.10831	0.00034	0.04704	0.11507	0.00522	-0.00807	0.12965
Q3C	0.17960	0.73042	0.00658	0.12270	0.12182	0.12994	0.07090	0.12869	-0.08350	-0.17433
Q3D	0.15807	0.56554	0.10978	-0.00378	0.14165	-0.02124	0.15651	0.11498	0.19896	-0.26562
Q4	-0.15188	0.34301	0.15815	0.17758	0.31595	0.20268	0.32741	-0.02385	0.21050	-0.14070
Q5	0.04116	0.06457	0.09987	0.71294	0.25649	0.07720	0.03699	-0.07651	0.13658	-0.04404
Q6	0.04308	0.07912	0.18950	0.21683	0.18334	0.16217	0.15004	0.22374	0.66410	-0.03107
Q7	0.26482	-0.05977	0.00287	0.61352	0.10510	0.30437	-0.04691	0.12347	0.33596	-0.00509
Q8	-0.11314	0.02361	0.15643	0.09329	-0.00593	0.04699	0.91864	0.11577	0.13366	0.08955
Q9	0.18689	0.07653	0.00339	0.66267	-0.00960	0.07716	0.53590	0.06475	-0.04342	0.03256
Q10	0.20254	0.18587	0.74157	0.01573	0.12132	0.11339	0.13892	0.00802	-0.10917	-0.01306
Q11	0.24033	0.01429	0.86497	0.00438	0.02688	0.05980	0.03631	0.03783	-0.01337	-0.06545
Q12	0.07578	0.15145	0.65936	0.12201	-0.04283	0.25900	0.07322	0.07493	0.22425	0.25423
Q13	-0.04466	0.39423	0.38214	0.10007	0.04890	-0.05145	0.43575	0.00196	0.01139	-0.09208
Q14	0.38788	0.35431	-0.05660	0.50390	0.13264	-0.01892	0.18796	0.20886	-0.00935	0.08424
Q15	-0.09847	-0.06749	-0.12420	0.08519	-0.24659	0.07985	0.04854	-0.11154	0.48378	0.11869
Q16	-0.07664	-0.11431	0.08311	0.03968	0.00714	-0.04621	-0.10133	-0.69585	-0.03683	0.10976
Q17	-0.04944	-0.10598	-0.21860	-0.11299	0.02189	-0.17422	0.03465	-0.78476	-0.02145	-0.16557
Q18	0.78850	0.29369	0.08108	-0.01942	0.13908	0.14248	-0.05060	-0.02562	0.01981	0.14372
Q19	0.79639	0.23489	0.31877	0.21839	0.04126	0.07731	-0.08544	0.06252	0.09515	0.20271
Q20	0.70726	0.22939	0.18049	0.35189	-0.06925	0.00802	0.03696	0.10049	0.99186	-0.03724
Q21	0.70503	0.19159	0.05293	-0.05224	0.17932	0.23182	-0.01708	0.03296	-0.10588	-0.11566
Q22	0.83128	-0.08605	0.07082	-0.01275	-0.00442	0.05752	0.07945	0.18255	-0.03506	0.12070
Q23	0.72465	0.03006	0.12735	0.23282	0.12279	0.02858	-0.04185	-0.05819	-0.08798	0.12885
Q24	0.51953	0.10235	0.05179	0.14521	0.27171	-0.09888	-0.21169	0.08805	0.23846	-0.33164
Q25	0.24401	0.02922	0.30328	-0.06669	0.10532	0.43497	0.20072	0.30301	-0.00817	0.35717
Q26	0.07489	-0.02368	0.13390	0.18920	0.08091	0.85460	-0.00925	0.02928	0.11483	0.03088
Q27	0.20263	0.15732	0.17127	0.05930	0.09036	0.65849	0.07600	0.25117	0.07759	-0.16674
Q28	0.05384	0.04870	-0.14101	0.23003	0.54544	0.25337	-0.04306	-0.14123	0.10193	0.15863
Q29	0.22125	0.03766	0.06968	0.05676	0.68455	-0.02020	-0.04293	-0.01004	-0.11204	0.00850
Q30	0.04560	0.17690	0.37682	0.19822	0.60315	0.15072	0.27972	0.21734	0.03799	0.19005
Q31	0.34061	0.16535	0.01617	0.23806	0.39845	0.09701	0.21660	0.36978	0.12741	0.15370

APPENDIX F. AGGRIGATED SCORES

COMPANY DESIGNATION=1 WCRK GROUP DESIGNATICN=1

INDCOHES	INDIVIDUAL LEVEL CF COHESIVENESS FELT				
MEAN	4.429	VARIANCE	0.175		
VALID CASES	7	MISSING CASES	0		
SOCIAL	INDIVIDUAL LEVEL CF SOCIABILITY				
MEAN	3.583	VARIANCE	0.842		
VALID CASES	6	MISSING CASES	1		
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY				
MEAN	4.381	VARIANCE	0.349		
VALID CASES	7	MISSING CASES	0		
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT				
MEAN	2.286	VARIANCE	1.155		
VALID CASES	7	MISSING CASES	0		
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY				
MEAN	4.143	VARIANCE	0.639		
VALID CASES	7	MISSING CASES	0		
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS				
MEAN	3.643	VARIANCE	0.976		
VALID CASES	7	MISSING CASES	0		
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL				
MEAN	3.357	VARIANCE	0.893		
VALID CASES	7	MISSING CASES	0		
Q3D	IND PERCEPTICN OF GRP PRODUCTIVITY				
MEAN	4.429	VARIANCE	0.286		
VALID CASES	7	MISSING CASES	0		

COMPANY DESIGNATION=1 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT				
MEAN	3.889	VARIANCE	0.391		
VALID CASES	12	MISSING CASES	2		
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY				
MEAN	3.583	VARIANCE	0.447		
VALID CASES	12	MISSING CASES	2		
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY				
MEAN	3.513	VARIANCE	1.085		
VALID CASES	13	MISSING CASES	1		
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT				
MEAN	3.042	VARIANCE	0.657		
VALID CASES	12	MISSING CASES	2		
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY				
MEAN	3.631	VARIANCE	0.362		
VALID CASES	12	MISSING CASES	2		
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS				
MEAN	3.692	VARIANCE	0.814		
VALID CASES	13	MISSING CASES	1		
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL				
MEAN	3.208	VARIANCE	0.794		
VALID CASES	12	MISSING CASES	2		
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY				
MEAN	4.417	VARIANCE	0.265		
VALID CASES	12	MISSING CASES	2		

COMPANY DESIGNATION=2 WORK GROUP DESIGNATION=1

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT		
MEAN	4.167	VARIANCE	0.333
VALID CASES	4	MISSING CASES	0
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY		
VALID CASES	0	MISSING CASES	4
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY		
MEAN	3.750	VARIANCE	1.657
VALID CASES	4	MISSING CASES	0
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT		
MEAN	2.875	VARIANCE	1.396
VALID CASES	4	MISSING CASES	0
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY		
MEAN	4.071	VARIANCE	1.816
VALID CASES	4	MISSING CASES	0
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS		
MEAN	3.000	VARIANCE	0.667
VALID CASES	4	MISSING CASES	0
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL		
MEAN	3.500	VARIANCE	0.167
VALID CASES	4	MISSING CASES	0
Q30	IND PERCEPTION OF GRP PRODUCTIVITY		
MEAN	4.250	VARIANCE	0.250
VALID CASES	4	MISSING CASES	0

COMPANY DESIGNATION=2 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT			
MEAN	4.012	VARIANCE	0.799	
VALID CASES	27	MISSING CASES	0	
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY			
MEAN	2.690	VARIANCE	1.137	
VALID CASES	21	MISSING CASES	6	
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY			
MEAN	3.321	VARIANCE	1.295	
VALID CASES	27	MISSING CASES	0	
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT			
MEAN	3.365	VARIANCE	0.991	
VALID CASES	26	MISSING CASES	1	
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY			
MEAN	4.011	VARIANCE	0.757	
VALID CASES	26	MISSING CASES	1	
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS			
MEAN	2.865	VARIANCE	1.391	
VALID CASES	26	MISSING CASES	1	
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL			
MEAN	2.962	VARIANCE	0.658	
VALID CASES	26	MISSING CASES	1	
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY			
MEAN	4.111	VARIANCE	0.872	
VALID CASES	27	MISSING CASES	0	

COMPANY DESIGNATION=3 WORK GROUP DESIGNATION=1

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT				
MEAN	3.458	VARIANCE	0.696		
VALID CASES	8	MISSING CASES	0		
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY				
MEAN	2.714	VARIANCE	0.655		
VALID CASES	7	MISSING CASES	1		
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY				
MEAN	3.750	VARIANCE	0.817		
VALID CASES	8	MISSING CASES	0		
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT				
MEAN	2.500	VARIANCE	0.571		
VALID CASES	8	MISSING CASES	0		
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY				
MEAN	3.980	VARIANCE	0.445		
VALID CASES	7	MISSING CASES	1		
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS				
MEAN	3.429	VARIANCE	0.286		
VALID CASES	7	MISSING CASES	1		
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL				
MEAN	3.125	VARIANCE	0.554		
VALID CASES	8	MISSING CASES	0		
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY				
MEAN	4.125	VARIANCE	0.696		
VALID CASES	8	MISSING CASES	0		

COMPANY DESIGNATION=3 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT		
MEAN	3.630	VARIANCE	1.476
VALID CASES	18	MISSING CASES	0
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY		
MEAN	3.346	VARIANCE	1.724
VALID CASES	13	MISSING CASES	5
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY		
MEAN	2.944	VARIANCE	0.709
VALID CASES	18	MISSING CASES	0
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT		
MEAN	2.917	VARIANCE	1.037
VALID CASES	18	MISSING CASES	0
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY		
MEAN	3.683	VARIANCE	0.594
VALID CASES	18	MISSING CASES	0
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS		
MEAN	3.324	VARIANCE	1.186
VALID CASES	17	MISSING CASES	1
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL		
MEAN	2.912	VARIANCE	1.539
VALID CASES	17	MISSING CASES	1
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY		
MEAN	4.000	VARIANCE	0.706
VALID CASES	18	MISSING CASES	0

COMPANY DESIGNATION=4 WORK GROUP DESIGNATION=1

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT			
MEAN	4.212	VARIANCE	0.428	
VALID CASES	11	MISSING CASES	0	
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY			
MEAN	3.955	VARIANCE	1.123	
VALID CASES	11	MISSING CASES	0	
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY			
MEAN	3.818	VARIANCE	1.053	
VALID CASES	11	MISSING CASES	0	
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT			
MEAN	3.500	VARIANCE	1.222	
VALID CASES	10	MISSING CASES	1	
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY			
MEAN	4.000	VARIANCE	0.522	
VALID CASES	10	MISSING CASES	1	
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS			
MEAN	3.800	VARIANCE	0.511	
VALID CASES	10	MISSING CASES	1	
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL			
MEAN	3.000	VARIANCE	0.900	
VALID CASES	11	MISSING CASES	0	
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY			
MEAN	3.909	VARIANCE	0.291	
VALID CASES	11	MISSING CASES	0	

COMPANY DESIGNATION=4 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT				
MEAN	3.846	VARIANCE	0.548		
VALID CASES	13	MISSING CASES	1		
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY				
MEAN	3.650	VARIANCE	0.558		
VALID CASES	10	MISSING CASES	4		
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY				
MEAN	4.364	VARIANCE	0.277		
VALID CASES	11	MISSING CASES	3		
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT				
MEAN	2.654	VARIANCE	2.058		
VALID CASES	13	MISSING CASES	1		
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY				
MEAN	4.341	VARIANCE	0.488		
VALID CASES	13	MISSING CASES	1		
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS				
MEAN	4.250	VARIANCE	0.568		
VALID CASES	12	MISSING CASES	2		
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL				
MEAN	3.154	VARIANCE	1.308		
VALID CASES	13	MISSING CASES	1		
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY				
MEAN	4.308	VARIANCE	0.564		
VALID CASES	13	MISSING CASES	1		

COMPANY DESIGNATION=5 WORK GROUP DESIGNATION=1

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT			
MEAN	4.200	VARIANCE	0.367	
VALID CASES	5	MISSING CASES	0	
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY			
MEAN	3.667	VARIANCE	2.333	
VALID CASES	3	MISSING CASES	2	
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY			
MEAN	3.400	VARIANCE	0.856	
VALID CASES	5	MISSING CASES	0	
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT			
MEAN	2.300	VARIANCE	0.200	
VALID CASES	5	MISSING CASES	0	
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY			
MEAN	4.429	VARIANCE	0.449	
VALID CASES	5	MISSING CASES	0	
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS			
MEAN	3.300	VARIANCE	0.700	
VALID CASES	5	MISSING CASES	0	
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL			
MEAN	3.600	VARIANCE	0.675	
VALID CASES	5	MISSING CASES	0	
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY			
MEAN	4.800	VARIANCE	0.200	
VALID CASES	5	MISSING CASES	0	

COMPANY DESIGNATION=5 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT		
MEAN	3.729	VARIANCE	1.307
VALID CASES	16	MISSING CASES	0
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY		
MEAN	3.100	VARIANCE	1.400
VALID CASES	15	MISSING CASES	1
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY		
MEAN	3.250	VARIANCE	1.252
VALID CASES	16	MISSING CASES	0
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT		
MEAN	3.188	VARIANCE	1.696
VALID CASES	16	MISSING CASES	0
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY		
MEAN	3.205	VARIANCE	1.170
VALID CASES	16	MISSING CASES	0
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS		
MEAN	3.063	VARIANCE	1.196
VALID CASES	16	MISSING CASES	0
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL		
MEAN	2.656	VARIANCE	1.357
VALID CASES	16	MISSING CASES	0
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY		
MEAN	3.875	VARIANCE	0.917
VALID CASES	16	MISSING CASES	0

COMPANY DESIGNATION=6 WORK GROUP DESIGNATION=1

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT			
MEAN	4.152	VARIANCE	0.408	
VALID CASES	11	MISSING CASES	0	
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY			
MEAN	2.333	VARIANCE	0.375	
VALID CASES	9	MISSING CASES	2	
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY			
MEAN	3.848	VARIANCE	0.519	
VALID CASES	11	MISSING CASES	0	
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT			
MEAN	2.727	VARIANCE	1.918	
VALID CASES	11	MISSING CASES	0	
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY			
MEAN	4.403	VARIANCE	0.448	
VALID CASES	11	MISSING CASES	0	
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS			
MEAN	3.409	VARIANCE	0.641	
VALID CASES	11	MISSING CASES	0	
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL			
MEAN	2.591	VARIANCE	0.341	
VALID CASES	11	MISSING CASES	0	
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY			
MEAN	4.636	VARIANCE	0.255	
VALID CASES	11	MISSING CASES	0	

COMPANY DESIGNATION=6 WORK GROUP DESIGNATION=2

INDCOHES	INDIVIDUAL LEVEL OF COHESIVENESS FELT			
MEAN	3.568	VARIANCE	0.964	
VALID CASES	27	MISSING CASES	1	
SOCIAL	INDIVIDUAL LEVEL OF SOCIABILITY			
MEAN	2.771	VARIANCE	0.913	
VALID CASES	24	MISSING CASES	4	
KOP	INDIVIDUAL KNOWLEDGE OF PRODUCTIVITY			
MEAN	3.583	VARIANCE	1.278	
VALID CASES	24	MISSING CASES	4	
ED	INDIVIDUAL ENVIRONMENTAL DEMAND FELT			
MEAN	3.036	VARIANCE	1.388	
VALID CASES	28	MISSING CASES	0	
LDRCRED	PERC'D LEVEL IND SUPER'S CREDIBILITY			
MEAN	3.714	VARIANCE	0.806	
VALID CASES	28	MISSING CASES	0	
ORGAWARE	IND LEVEL OF ORGANIZATIONAL AWARENESS			
MEAN	3.482	VARIANCE	1.120	
VALID CASES	28	MISSING CASES	0	
EQUITY	EQUITY AS PERCEIVED BY INDIVIDUAL			
MEAN	3.074	VARIANCE	0.937	
VALID CASES	27	MISSING CASES	1	
Q3D	IND PERCEPTION OF GRP PRODUCTIVITY			
MEAN	4.148	VARIANCE	0.593	
VALID CASES	27	MISSING CASES	1	

LIST OF REFERENCES

1. Cartwright, D. and Zander, A., Group Dynamics: Research and Theory, p. 91, Row Peterson, 1953.

2. Seashore, S.E., Group Cohesiveness in the Industrial Work Group, p. 10, University of Michigan, 1954.

3. Eisman, B., "Some Operational Measures of Cohesiveness and Their Interrelations," Human Relations, v. 12, n. 2, p. 188, May 1959.

4. Vroom, V.H., Work and Motivation, pp. 14-19, John Wiley, 1964.

5. de la Porte, P.C.A., "Group Norms: Key to Building a Winning Team," Personnel, v. 51, n. 5, p. 60, September/October 1974.

6. Tuckman, B.W., "Development Sequence in Small Groups," Psychological Bulletin, v. 63, p. 384, 1965.

7. Hersey, P. and Blanchard, K.H., Management of Organizational Behavior, 3rd ed., p. 163, McGraw-Hill, 1970.

8. Seashore, p. 61.

9. Meyer, E.C., "The Unit," Defense, p. 4, February 1982.

10. Goodacre, D.M., "The Use of a Sociometric Test as a Predictor of Combat Unit Effectiveness," Sociometry, v. 14, p. 148, 1951.

11. Hemphill, J.K., and Sechrest, L.A., "A Comparison of Three Criteria of Air Crew Effectiveness in Combat Over Korea," Journal of Applied Psychology, v. 36, p. 323, 1952.

12. Cohen, D., Whitmyre, J.W., and Funk, W.H., "Effect of Group Cohesiveness and Training Upon Creative Thinking," Journal of Applied Psychology, v. 44, p. 319, 1960.

13. Stogdill, R.M., "Group Productivity, Drive, and Cohesiveness," Organizational Behavior and Human Performance, v. 8, p. 27, 1972.

14. Seashore, p. 69.

15. Howell, J.P., and Dorfman, P.W., "Substitutes for Leadership: Test of a Construct," Academy of Management Journal, v. 24, p. 714, December 1981.

16. Bare, A.C., Model of Work Group Performance, Ph.D. Thesis, Cornell University, 1976.

17. Nelson, P.D., and Berry, N.H., "Cohesion in Marine Recruit Platoons," The Journal of Psychology, v. 68, p. 63, 1968.

18. Stouffer, S.A., The American Soldier: Combat and Its Aftermath, Studies in Social Psychology in World War II, p. 320, Princeton University Press, 1949.

19. Shils, E.A., and Janowitz, M., "Cohesion and Disintegration in the German Wehrmacht in World War II," Public Opinion Quarterly, v. 12, p. 280, 1948.

20. Marshall, S.L.A., Men Against Fire, p. 42, William Morrow and Company, 1947.

21. Meyer, p. 5.

22. Seashore, p. 100.

23. Stogdill, pp. 30-31.

24. Group Dynamics: Groupthink, (film), McGraw-Hill Films, 1973, 23 min., col.

25. The Abilene Paradox (videotape), Fort Belvoir, Virginia, December 1981, 2 cassettes, 62 min., BW.

26. Stoner, J.A.F., Management, pp. 382-383, Prentice-Hall, 1982.

27. Freud, S., Group Psychology and Analysis of the Ego, p. 13, The Hogarth Press, 1930.

28. Levinson, H., Psychological Man, pp. 72-78, The Levinson Institute, Inc., 1976.

29. Seashore, p. 69.

30. Seashore, p. 61.

31. Farris, G.F., "Chickens, Eggs, and Productivity in Organizations," Organizational Dynamics, v. 3, n. 4, p. 8, Spring 1975.

32. Seashore, pp. 36-37.

33. Ewen, R.B., "Weighting Components of Job Satisfaction," Journal of Applied Psychology, v. 51, p. 68, 1967.

34. Nie, N.H., and others, Statistical Package for the Social Sciences, 2nd ed., pp. 218-360, McGraw-Hill, 1975.

35. Gorden, R.L., Interviewing: Strategy, Techniques, and Tactics, 3rd ed., pp. 48-49, The Dorsey Press, 1980.

36. Crane, P.S., Korean Patterns, 4th ed., p. 153, Kwangjin Publishing Co., 1978.

37. Project COHORT Second Interim Report, pp. 1-4, 27 July 1982.

38. Project COHORT Second Interim Report, pp. 2-19 and 2-22, 27 July 1982.

BIBLIOGRAPHY

Askenasy, A.R., Perception of Korean Opinions: A Study of U.S. Officer's Expertise, American University Center for Research in Social Systems, July 1969.

Assessment of Attitudes Between USMC Personnel and Civilian Workers Employed on U.S. Bases in Japan, Okinawa, and Vietnam, Fleet Marine Force, Pacific (Forward), July 1967.

Babbie, E.R., Survey Research Methods, Wadsworth Publishing Company, Incorporated, 1973.

Bare, A.C., Model of Work Group Performance, Ph.D. Thesis, Cornell University, 1976.

Washington University Report 76-78, The Influence of Intelligence, Task Ability, and Motivation on Group Performance, by J.W. Blades and F.E. Fiedler, January 1976.

Bleda, P.R., Getter, G.A., and D'Agostino, "Enlisted Men's Perceptions of Leader Attributes and Satisfaction with Military Life," Journal of Applied Psychology, v. 62, n. 1, 1977.

Brightman, H.J., "Leadership Style and Worker Interpersonal Orientation--A Computer Simulation Study," Organizational Behavior and Human Performance, v. 14, n. 1, August 1975.

Carroll, B., and Channon, J., Soldier Glue, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Cartwright, D., and Zander, A., Group Dynamics: Research and Theory, Row Peterson, 1953.

Channon, J., The Language of Cohesion, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Channon, J., The First Earth Battalion, Ideas and Ideals for Soldiers Everywhere, Delta Force, 1979.

Chemers, M.M., "Cross-cultural Training as a Means for Improving Situational Favorableness," Human Relations, v. 22, 1969.

Chesler, D.J., Van Steenberg, N.J., and Bruenckel, E., "Effect on Morale of Infantry Team Replacement and Individual Replacement Systems," Sociometry, v. 18, n. 4, 1955.

Coates, C.H., and Pelligrin, R.J., Military Sociology: A Study of American Military Institutions and Military Life, Social Science Press, 1965.

Cohen, D., Whitmyre, J.W., and Funk, W.H., "Effect of Group Cohesiveness and Training Upon Creative Thinking," Journal of Applied Psychology, v. 44, 1960.

Crane, P.S., Korean Patterns, 4th ed., Kwangjin Publishing Company, 1978.

Crews, C.Y., and Melnick, J., "Use of Initial and Delayed Structure in Facilitating Group Development," Journal of Counseling Psychology, v. 23, n. 2, March 1976.

Washington University Report 71-21, The Effects of Leadership Experience and Training in Structured Military Tasks, by L.S. Csoka and F.E. Fiedler, 1971.

DA Circular 600-82-2, The New Manning System, 15 October 1982.

Dailey, R.C., "The Effects of Cohesiveness and Collaboration on Work Groups: A Theoretical Model," Group and Organizational Studies, v. 2, n. 4, December 1977.

de la Porte, P.C.A., "Group Norms: Key to Building a Winning Team," Personnel, v. 51, n. 5, September/October 1974.

Dunham, R.B., and Smith, F.J., Organizational Surveys: An Internal Assessment of Organizational Health, Scott, Foresman and Company, 1979.

Eisman, B., "Some Operational Measures of Cohesiveness and Their Interrelations," Human Relations, v. 12, n. 2, 1959.

Eighth Army Pamphlet 600-205, Eighth U.S. Army Cold War Education and Action Program, 25 April 1967.

Ewen, R.B., "Weighting Components of Job Satisfaction," Journal of Applied Psychology, v. 51, 1967.

Faris, J.W., "An Alternative Perspective to Savage and Gabriel," Armed Forces and Society, v. 3, n. 3, May 1977.

Farris, G., "Chickens, Eggs, and Productivity in Organizations," Organizational Dynamics, v. 3, n. 4, Spring 1975.

Washington University Report 71-18, Personality and Situational Determinants of Leader Behavior, by F.E. Fiedler 1971.

University of Illinois Report 22, The Significance of Role Behavior Differentiation for Cross-Cultural Interaction Training, by U.G. Foa and M.M. Chemers, March 1966.

Freud, S., Group Psychology and Analysis of the Ego, The Hogarth Press, 1930.

Goldberg, S.C., "Influence and Leadership as a Function of Group Structure," Journal of Abnormal Psychology, v. 51, 1955.

Goldberg, S.C., "Three Situational Determinants of Conformity to Social Norms," Journal of Abnormal Psychology, v. 49, 1954.

Goodacre, D.M., 'The Use of a Sociometric Test as a Predictor of Combat Unit Effectiveness," Sociometry, v. 14, 1951.

Gorden, R.L., Interviewing: Strategy, Techniques, and Tactics, 3rd, ed., The Dorsey Press, 1980.

Greene, C.N., and Schriesheim, C.A., "Leader-Group Interaction: A Longitudinal Field Investigation," Journal of Applied Psychology, v. 65, n. 1, February 1980.

Gross, E., "Primary Functions of the Small Group," American Journal of Sociology, v. 60, 1954.

Harris, M., and Nelson, L., Cohesion: An Outcome of Values Based Leadership, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

The Abilene Paradox (videotape), Fort Belvoir, Virginia, December 1981, 2 cassettes, 62 min., BW.

Hays, S.H., and others, Taking Command, Stackpole Books, 1967.

Hemphill, J.K., and Sechrest, L.A., "A Comparison of Three Criteria of Air Crew Effectiveness in Combat Over Korea," Journal of Applied Psychology, v. 36, 1952.

Hersey, P., and Blanchard, K.H., Management of Organizational Behavior, 3rd ed., McGraw-Hill, 1970.

Washington University Report 71-22, The Effect of Work Organization, Leadership Style, and Member Compatibility upon Small Group Productivity, by H.T. Hewett and G.E. O'Brian, 1971.

Hirschi, T., and Selvin, H.C., Principles of Survey Analysis, MacMillan Publishing Co., 1973.

Hollman, C.R., The Leadership Role of Military and Civilian Supervisors in a Military Setting as Perceived by Superiors and Subordinates, Ph.D. Thesis, Washington University, 26 February 1965.

Howell, J.P., and Dorfman, P.W., "Substitutes for Leadership: Test of a Construct," Academy of Management Journal, v. 24, n. 4, December 1981.

Humphrey, R.L., Fight the Cold War: A Handbook for Overseas Orientation Officers, American Institutes for Research, 1966.

Humphrey, R.L., Fight the Cold War: Korean Supplement for Americans, American Institute for Research, 1966.

Jacobs, O., Unit Replacement--Why? How?, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Group Dynamics: Groupthink (film), McGraw-Hill Films, 1973, 23 min., Col.

University of Illinois Report 77-1, Organizational and Individual Characteristics, Organizational Climate, and Job Attitudes: A Multivariate Investigation of Responses at Individual and Group Levels of Analysis, by R. Katerberg, J.B. Herman, and C.L. Hulin, February 1977.

Kelly, T., and Harris, M., Values Based Leadership and the Regimental System, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Koch, J.L., "Effects of Goal Specificity and Performance Feedback to Work Groups on Peer Leadership, Performance, and Attitudes," Human Relations, v. 32, n. 10, October 1979.

Lang, K., Military Institutions and the Sociology of War, Sage Publications, 1972.

LaRocca, J.M., and Jones, A.P., "Co-Worker and Leader Support as Moderators of Stress-Strain Relationships in Work Situations," Journal of Applied Psychology, v. 63, n. 5, 1978.

Levinson, H., Psychological Man, The Levinson Institute, Inc. 1976.

Little, R.W., "Buddy Relations and Combat Performance," The New Military: Changing Patterns of Organization, ed. by M. Janowitz, Russel Sage Foundation, 1964.

Lott, A.J., and Lott, B.E., "Group Cohesiveness as Interpersonal Attraction," Psychological Bulletin, v. 64, n. 4, 1965.

Madej, V., "Cohesion and Effectiveness of the German Ground Forces in World War II," Journal of Political and Military Sociology, v. 6, n. 2, Fall 1978.

Malone, D.M., A Strategy for Cohesion, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Malone, D.M., OER As Tool For Cohesiveness, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Malone, D.M., X-H, Delta Force, 1979.

Manning, F.J., and Ingraham, L.H., Considerations of Cohesion, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Marlowe, D., The Regimental System, A System Embedded in Systems, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Marshall, S.L.A., Men Against Fire, William Morrow and Company, 1947.

McCaskey, M.B., A Framework for Analyzing Workgroups, Harvard Business School, 1981.

Medalia, N.Z., "Authoritarianism, Leader Acceptance, and Group Cohesion," Journal of Abnormal and Social Psychology, v. 51, 1955.

Meigs, M., Grassroots and a Shortcut to the Regimental System, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Meyer, E.C., "The Unit," Defense, February 1982.

Moskos, C.C., Jr., The American Enlisted Man, Russel Sage Foundation, 1970.

Muldoon, J.F., "The Concentration of Liked and Disliked Members in Groups and the Relationship of the Concentrations to Group Cohesiveness," Sociometry, v. 18, 1955.

Nayar, E., Touzard, H., and Summers, D., "Training, Tasks, and Mediator Orientation in Heterocultural Negotiations," Human Relations, v. 21, n. 3, 1968.

Nelson, P.D., and Berry, N.H., "Cohesion in Marine Recruit Platoons," The Journal of Psychology, v. 68, 1968.

Nie, N.H., and others, Statistical Package for the Social Sciences, 2nd ed., McGraw-Hill, 1975.

Olsen, E.A., The Societal Roles of the ROK Armed Forces, paper presented at Conference on the Role of the Armed Forces in Contemporary Asian Societies, Monterey, California, 4 August 1982.

Oppenheim, Questionnaire Design and Attitude Measurement, Basic Books, Incorporated, 1966.

Pepitone, A., and Kleiner, R., "Effect of Threat and Frustration on Group Cohesiveness," Journal of Abnormal and Social Psychology, v. 54, 1957.

Project COHORT First Interim Report, 15 October 1981.

Project COHORT Second Interim Report, 27 July 1982.

Reeves, E.T., The Dynamics of Group Behavior, American Management Association, 1970.

Reilly, R., Group Cohesion: The "Short Form", draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Reilly, R., and Meigs, M., You...You...You...And...You, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Savage, P.L., and Gabriel, R.A., "Cohesion and Disintegration in the American Army," Armed Forces and Society, v. 2, n. 3, May 1976.

Schachter, S., and others, "An Experimental Study of Cohesiveness and Productivity," Human Relations, v. 4, 1951.

Schriesheim, J.F., "The Social Context of Leader-Subordinate Relations: An Investigation of the Effects of Group Cohesiveness," Journal of Applied Psychology, v. 65, n. 2, April 1980.

Seashore, S.E., Group Cohesiveness in the Industrial Work Group, University of Michigan, 1952.

Sherif, C.W., and Sherif, M., Attitude, Ego Involvement, and Change, John Wiley and Sons, Inc., 1967.

Shils, E.A., and Janowitz, M., "Cohesion and Disintegration in the German Wermacht in World War II," Public Opinion Quarterly, v. 12, 1948.

Silvasy, S., Jr., A Simple Training Strategy to Support the Army's Cohesion Goals, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Silvasy, S., Jr., and others, Cohesion Through Initial Entry Training, draft paper presented at 8th Quarterly Meeting of Delta Force, Carlisle Barracks, Pennsylvania, 16-19 February 1981.

Sorley, L., "Prevailing Criteria: A Critique," Combat Effectiveness: Cohesion, Stress, and the Voluntary Military, ed. by S.C. Sarkesian, Sage Publications, 1980.

Staw, B.M., "Attribution of the Causes of Performance--A General Alternative Interpretation of Cross-Sectional Research on Organizations," Organizational Behavior and Human Performance, v. 13, n. 3, June 1975.

Stein, A.A., "Conflict and Cohesion: A Review of the Literature," Journal of Conflict Resolution, v. 20, n. 1, 1976.

Stogdill, R.M., "Group Productivity, Drive, and Cohesiveness," Organizational Behavior and Human Performance, v. 8, 1972.

Stouffer, S.A., and others, The American Soldier: Combat and Its Aftermath, Studies in Social Psychology in World War II, Princeton University Press, 1949.

Thibaut, J., "An Experimental Study of the Cohesiveness of Underprivileged Groups," Human Relations, v. 3, 1950.

Thomas, E.J., "Effects of Facilitative Role Interdependence on Group Functioning," Human Relations, v. 10, 1957.

University of Illinois Report 2-81, Some Dimensions of Intercultural Variation and their Implications for Interpersonal Behavior, by H.C. Triandia, May 1981.

Tuckman, B.W., "Development Sequence in Small Groups," Psychological Bulletin, v. 63, 1965.

Varney and Lasher, "Surveys and Feedback as a Means of Organization Diagnosis and Change," OD-Emerging Dimensions and Concepts, ed. by Patten, American Society of Training and Development, 1973.

Vroom, V.H., Work and Motivation, John Wiley, 1964.

Wermuth, A.L., "A Critique of Savage and Gabriel," Armed Forces and Society, v. 3, n. 3, May 1977.

Wesbrook, S., "The Potential for Military Disintegration," Combat Effectiveness: Cohesion, Stress, and the Voluntary Military, ed. by S.C. Sarkesian, Sage Publications, 1980.

Witt, W.W., Increasing Our Army's Force Readiness Through the Improvement in Efficiency and Effectiveness of How Our Army Organizations Handle Information Flow, Delta Force, 1979.

Zentner, H., "Morale: Certain Theoretical Implications of Data in 'The American Soldier'," American Sociological Review, v. 16, 1951.

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